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LITTLE *is known of most ship portraitists beyond the signatures which they placed on their paintings. Collectors, museum curators and dealers are familiar with the names and styles of these painters in various ports of the world, but so little is known about the men themselves that the dates of their births and deaths can only roughly be estimated from the periods in which they painted. The Roux family are associated with a hydrographer's shop on a Marseille quai, but as a rule one knows nothing of the background, social condition or personal life of the ship portraitist, for histories of painting and dictionaries of art history ignore the existence of these industrious craftsmen, who contributed so much to the office and household decoration of nineteenth-century shipmasters and merchants.*

Antonio Jacobsen, whose oil paintings are familiar to most American steamship historians and collectors, has been a shade less anonymous than most ship portraitists, as he signed not only his name, but his full street address in West Hoboken, New Jersey, on many of his pictures—a sound advertising practice that doubtless attracted new customers. However, many of the present owners of Jacobsen's pictures know nothing more about him than this, and they will be grateful to Miss Mary

Whitmore of the Marine Museum of the City of New York for her enterprise in obtaining a biographical sketch from the painter's son, Mr. Alphonse T. Jacobsen, and for her kindness in allowing it to be printed in this issue of the NEPTUNE. *It is hoped that Miss Whitmore's example will lead other readers to seek out and submit biographical material on other ship portraitists.*

When Count Sparre's log of 'The Disorderly Voyage of the Brig Betsy' *was being prepared for publication last winter, it proved impossible from the published ship registers to identify the particular* Betsy *involved. Now Mr. David C. Duniway of The National Archives staff has, by searching the collection of registers there, definitely established the identity of the disorderly brig, and has contributed a note on the subject to this issue. It is gratifying to note other instances in which readers have supplied valuable information supplementing and elaborating articles previously published. Lieutenant Brewington, who described the Durham boat in the April* 1942 *issue, is now able to trace the migration of that craft to the rivers of Wisconsin as the result of data furnished by Mr. Clinton de Witt. Lieutenant Lyman supplies original names for some of the American-built ships whose later European careers have been summarized by Mr. Daniel R. Bolt, and Mr. Augustus H. Fiske gives the location of the wrecks of some of the Civil War blockade-runners that were described by Mr. Arthur C. Wardle in the last issue. Further evidence that* THE AMERICAN NEPTUNE *serves as 'a common meeting ground for all interested in the many diverse aspects of marine research' and 'as a means of communication between its readers' (to quote the original prospectus) is furnished by Dr. Lamb's article on the Great Northern Steamship Company, which is based in part on information received in reply to a query printed in April* 1941.

The Trans-Pacific Venture of James J. Hill

A History of the Great Northern Steamship Company

BY W. KAYE LAMB

SOME of the most interesting pages of maritime history are devoted to the description of failures. These have been of many kinds and degrees, varying from mechanical inadequacies to a simple inability to earn dividends. But the causes of failure must rarely have been more diverse than the difficulties and misfortunes which overwhelmed James J. Hill's effort to establish a trans-Pacific steamship line. Now almost forgotten, the episode deserves to be placed on record, for Hill made his attempt upon a grand scale. Indeed, in one respect it has never been equalled; for the two steamships built in an American shipyard forty years ago for the new service were the greatest cargo carriers ever constructed. Unfortunately the life of one of the vessels was brief, while the record of the other is such that she might well have been dubbed the *Great Eastern* of the Pacific.

Hill's shipping activities were many and varied, but they have been overshadowed by his more spectacular achievements as a builder and manager of railways. In his youth he was employed as a clerk on the Mississippi River packets. It was a steamboat service on the Red River, which he organized in the seventies, that gave him his start in the transportation world. Years later, when he had gained control of a railway system centering upon St. Paul, he more than once turned to ships as a means of extending the influence of his lines. Thus in the eighties, when the eastern railroads blocked his efforts to build or buy a line to Chicago, his reply was to organize the Northern Steamship Company and operate a fleet of freighters from Duluth to Chicago and Buffalo. He next built the *North West* and *North Land,* in their day the finest steamers on the Great Lakes, and entered the passenger trade.[1] At the turn of the century came the trans-Pacific service described in the pages which follow. Final-

[1] The Northern Steamship Company was formed in June 1888, and Hill disposed of it after he gained access to Chicago by rail in 1901. The *North West* and *North Land* were 17-knot steamers of 4,244 tons gross, and carried 500 passengers, all first class.

ly, in Hill's old age, his railways were refused permission to extend their lines from Seattle and Portland to San Francisco. Turning to ships once more, they organized the Great Northern Pacific Steamship Company, which built two luxurious 23-knot steamers, the *Great Northern* and the *Northern Pacific*.[2] Sailing, in the words of the advertisements, 'one each way, every other day,' between Flavel, at the mouth of the Columbia River and San Francisco, these swift liners covered the distance in something approaching railroad time.

The background of Hill's trans-Pacific venture can be given in a few words. The Great Northern Railway, of which he was president, was opened for through traffic to Seattle in 1893. Though its completion fulfilled Hill's greatest ambition, he was not content to stop short at the Pacific Coast. Looking northward he saw that the Canadian Pacific Railway extended its trade and influence to the Orient by means of its *Empress* liners, sailing from Vancouver, British Columbia. On Puget Sound itself the Northern Pacific Steamship Company operated a trans-Pacific service from Tacoma, the terminus of Hill's immediate competitor, the Northern Pacific Railroad. Hill felt that the Great Northern, like its rivals, must have an ocean link with the Orient. Preliminary investigations were started at once. 'I sent men to Japan and China,' Hill wrote later, 'and kept them there, one man for more than a year. His business was to get a manifest of every ship that entered or left a Chinese or Japanese port, if he could; to find out what the exports and imports of those countries consisted of and where they went.'[3] Then in February 1896 Hill sent a trusted associate, Captain James Griffiths, to Japan. In July Griffiths signed an agreement with the Nippon Yusen Kaisha — then as now the leading Japanese steamship company. It provided for a monthly service between Hongkong, Japanese ports, and Seattle, and for an exchange of traffic to and from the Orient with the Great Northern Railway. The service thus established was the first across the Pacific maintained by the Japanese. Three small steamers were placed on the run, the first of which, the *Miike Maru,* was received with great enthusiasm when she arrived in Seattle on 31 August.[4]

[2] These handsome steamers offered an interesting contrast to the *Minnesota* and *Dakota*. Their length was 524 feet, and their gross tonnage 8,255. Ordered from the Cramp yard in 1913, they entered service two years later. Both gained fame for their remarkable work as transports in 1917-1919. Early in 1922, when about to be reconditioned for peace time service, the *Northern Pacific* was destroyed by fire. The *Great Northern* survived and returned to the Pacific Coast, where she ran for years in the service of the Admiral Line under the name *H. F. Alexander*. When last heard of she had been purchased by British interests, after a long spell of idleness in San Francisco harbor.

[3] J. G. Pyle, *The Life of James J. Hill* (New York, 1917), II, 53. See also the brief article by Hill, 'The Future of Our Oriental Trade,' *The World's Work,* X (1905), 6465-67.

[4] *Golden Jubilee History of the Nippon Yusen Kaisha* ([Tokyo] 1935), pp. 29-32.

The Nippon Yusen Kaisha soon improved its service. By 1900 it was employing new steamers of 6,300 tons gross which were as large as any on the Pacific. But Hill was still far from satisfied. He had long been fascinated by the teeming millions of Japan and China, and hoped that their needs might create a vast market for North American products. If, for example, the Chinese could be persuaded to use wheat and wheat flour instead of rice, even a small per capita consumption would result in an enormous commerce. This in turn would bring prosperity both to the farmers of Minnesota and Dakota, through which Hill's railroad ran, and to the Great Northern Railway itself, which would haul the wheat to the Pacific Coast for export. In like fashion Hill envisaged a trade in cotton from the South, and in steel products from eastern centers.

Trial shipments of cotton and steel persuaded him that his plans were practical. They made it clear, however, that the lowest possible rates would be essential if he were to compete successfully with foreign products shipped by other routes. Undoubtedly this fact was uppermost in Hill's mind when the type of vessel to be built for the new service was considered. The day of the big ship was just dawning, and much was being made of the fact that it cost less per ton to transport goods in a large steamer than in a small one. Hill himself had proven the fact to his own satisfaction on the Great Lakes. In his own words: 'The difference in cost between the operation of a boat of 3,000 and one of 12,000 tons is only so much as will cover the employment of two extra firemen, two more deck hands, and the purchase of about ten tons of coal additional per day; in all, some $28. At this slight extra expense the carrying power is quadrupled.'[5] Hill was satisfied both that a still larger ship would make an even better showing, and that great quantities of freight would soon be flowing across the Pacific. In the interests of economy he therefore ordered vessels which were not only half as big again as any merchant ship ever built or building in the United States, but were actually larger than any ship afloat in 1900, when the contract was signed.

Four ships were projected, but only two, the *Minnesota* and *Dakota,* were ever built. Some of the circumstances attending their construction were somewhat unusual. The order was not given to an old established firm, but to the Eastern Shipbuilding Company,[6] of which Charles R.

[5] Pyle, *Life of James J. Hill,* I, 422.

[6] The Eastern Shipbuilding Company was one of the corporations included in the notorious shipbuilding trust organized in 1902 and known as the United States Shipbuilding Company. The trust collapsed in less than a year. Its history is recorded in detail in most textbooks on the trust problem. See for example Arthur S. Dewing, *Corporate Promotions and Reorganizations* (Cambridge, Mass.: Harvard University Press, 1914).

Hanscom was president. This company was so new in the field that when the contract was signed, on 28 February 1900, it did not even possess a site for a shipyard. Nor had the Great Northern Steamship Company, which was to own and operate the liners, been incorporated at that time.[7] Personal considerations seem to have dictated Hill's choice of a shipbuilder. Hanscom had formerly been with the Bath Iron Works; Hill's private yacht had been rebuilt at Bath a few years before, and Hill had been impressed with Hanscom's ability. Soon after the awarding of the contract for the *Minnesota* and *Dakota* Hill and Hanscom personally selected a site for the new shipyard.[8] The spot chosen was on the Groton shore, opposite New London, Connecticut. It may be added that the Eastern Shipbuilding Company never secured a second contract; but the site of its yard is now occupied by the busy submarine building works of the Electric Boat Company.

Hill and Hanscom apparently themselves determined the chief characteristics of the *Minnesota* and *Dakota*. Professor J. H. Biles, the celebrated naval architect, was paid a fee of $30,000 for 'Advice regarding design of Ships,'[9] but there was little about the lines or layout of the vessels that suggested his handiwork.[10] Their general design was clearly inspired by the large intermediate liners which were appearing on the Atlantic at the time, modified to suit the supposed requirements of the trans-Pacific trade. But in certain respects Hill ventured far beyond current practice. The largest intermediate steamer in service in 1900 was the Cunard liner *Ivernia,* with a gross tonnage of 14,067 tons, a displacement of 24,789 tons, and a dead-weight carrying capacity of 12,859 tons.[11] Bear-

[7] The Great Northern Steamship Company was incorporated 3 August 1900, under the laws of the State of Minnesota, and capitalized at $6,000,000. *Great Northern Steamship Company: Memorandum* (prepared for the writer in the office of the Comptroller of the Great Northern Railway Company). Cited hereafter as *G.N.S.Co. Memo.*

[8] On 7 March 1900. See F. N. Stacy, 'Giant Ships for Our Oriental Trade,' *The American Monthly Review of Reviews,* XXVII (1903), 570. This popular account of Hill's ships and plans gives several dates and details not given elsewhere. Cited hereafter as Stacy in *Review of Reviews,* 1903.

[9] Records of the Great Northern Steamship Company, in the office of the Comptroller of the Great Northern Railway, St. Paul. Cited hereafter as G.N.S.Co. Records.

[10] Details of the design were worked out by W. A. Fairburn, a naval architect, but there is no reason to doubt that Hanscom and Hill made the basic decisions. The only deck plans of the ships that the writer has seen are the original blueprints preserved in the records of the company in St. Paul.

[11] These figures were soon greatly exceeded in the White Star liner *Celtic,* but at the time Hill signed his contract the *Celtic* was not far beyond the blueprint stage. In contrast to the *Minnesota,* the *Celtic* was built with remarkable speed. She was launched in April 1901 and was completed two months later. At that time she was the largest ship afloat. Her gross tonnage was 20,904 (as compared with the 20,718 tons of the *Minnesota*), and her maximum displacement 37,900 tons (as compared with 37,500). In actual cubic measurement and weight the two ships were thus almost identical, but in other respects they were very different. The *Celtic* was 70 feet longer (697 feet over-all as compared with 627 feet), had finer lines, was several knots faster, had a much more extensive superstructure, and carried three times as many cabin passengers. These features reduced her dead-

ing in mind the heavy cargoes expected on the Pacific, Hill designed the *Minnesota* and *Dakota,* with a gross tonnage of 20,718, a maximum displacement of 37,500 tons, and a carrying capacity of no less than 22,250 tons.[12] The hulls were unusually deep, and as a consequence their cubic capacity was so great that the vessels could load to the fantastic total of 28,000 tons measurement. The registered dimensions of the *Minnesota* were: length 622 feet, width 73.5 feet, and depth molded 64 feet 6 inches.[13]

It is worth nothing that although she was so much larger than the *Ivernia,* the *Minnesota* was only 42 feet longer. It was extra width, extra depth, the bluntness of her bows, and the fullness of her lines that increased her tonnage and capacity. Anyone familiar with ships would know at a glance that she would be slow. But speed was regarded as of little importance, as she and the *Dakota* were designed primarily as cargo carriers. Hill seems to have asked for a voyage average of no more than 12 to 13 knots. To attain this the liners were given twin screws, driven by triple-expansion reciprocating engines rated at 10,000 I.H.P.[14] The machinery was of conventional type, but the design and equipment of the

weight carrying capacity to 17,450 tons, as compared with 22,250 tons in the *Minnesota.* In the *Celtic's* sister ship, the *Cedric,* the carrying capacity was increased to 18,200 tons. The third ship of the famous White Star series, the *Baltic,* was the largest ship in service when the *Minnesota* was completed in 1904. Her gross tonnage was 23,876, displacement 40,700 tons, and carrying capacity 19,880 tons.

12 This figure was once closely approached but not exceeded for more than twenty years. In 1917 the Red Star liner *Belgenland,* temporarily renamed *Belgic,* was sent to sea in an incomplete state as a freighter, owing to the desperate shortage of ships at that time. Her dead-weight capacity was 22,025 tons. This was, of course, reduced substantially when she returned to the shipyard and was completed as a passenger liner, in 1923. The tanker *C. O. Stillman,* built in 1928, had a dead-weight capacity of 22,700 tons. Whether or not her capacity was greater than the *Minnesota's* is uncertain, however, as it has been stated that the latter could safely carry as much as 23,800 tons. So far as is known the *Minnesota's* capacity in tons measurement has never been exceeded.

13 The *Minnesota* and *Dakota* had cellular double bottoms divided into twenty-nine watertight compartments. In addition to twelve transverse bulkheads, dividing the hull into compartments in the usual way, a longitudinal bulkhead, extending to the main deck, and running from stem to stern, divided the ships in half lengthwise. Even the cargo holds were thus cut in half, and the numerous large hatches were therefore arranged in pairs, one on each side of the bulkhead. The over-all length of the *Dakota* was 627 feet, 9 inches; the length between perpendiculars 608 feet. Her displacement was 37,500 tons at a draft of 38 feet; the block coefficient was .76 at a draft of 32 feet, 6 inches. The height from the keel to the upper navigating bridge was 88 feet, 4 inches; from the keel to the top of the funnel, 134 feet, 6 inches. The gross tonnage of the *Dakota* was 20,714.32; her net tonnage 13,305.58. The gross tonnage of the *Minnesota* was 20,718; underdeck tonnage 19,469; net tonnage 13,324. These particulars are taken from *Lloyd's Register of Shipping,* or from A. Gunderson, 'Description of Steamship *Dakota* and her Official Trial Performance,' *Journal of the American Society of Naval Engineers,* XVII (1905), 365-405. The latter is the best technical description of either of the vessels that the writer has seen. Cited hereafter as Gunderson, 'Description of Steamship *Dakota.*' Photographs of the passenger accommodation of the *Dakota* appear in *Marine Engineering* (June 1905), pp. 248-250.

14 Each engine had three cylinders, measuring 29, 51, and 89 inches in diameter respectively. The length of stroke was 57 inches. On her trials the engines of the *Dakota* worked up to 90 r.p.m., and developed a maximum of 11,940 I.H.P. Gunderson, 'Description of Steamship *Dakota,*' pp. 372, 402, 405. The machinery for both ships was built by the Midvale Steel Company, of Philadelphia.

vessels included several important innovations. Thus the *Minnesota* and *Dakota* were the first large merchantmen to have water-tube boilers. Hill had had experience with the type in the *North West* and *North Land*, on the Great Lakes, but a different make of boiler was installed in the big liners, and these gave endless trouble.[15] Mechanical stokers, with which four of the sixteen boilers in each ship were equipped, were another novelty. Hill himself is said to have been responsible for the design of the main coal bunkers. These were placed much higher in the hull than usual, and resembled huge hoppers, the idea being that this would enable gravity to do much of the work usually done by hand.[16] In practice the plan proved a costly failure. It was found that the bunkers easily became overheated, and the hopper-like design subjected the coal to increased friction and pressure. As a result the *Minnesota* in particular was frequently troubled with bunker fires.

Although the carrying of passengers was a secondary consideration, careful attention was given to their comfort.[17] Accommodation for some two hundred first class passengers was provided amidships in a superstructure three decks high. It boasted such luxury-liner features as private suites with sitting rooms, and cabins with telephones. Unusually wide promenade decks and five public rooms helped to make good the Great Northern Steamship Company's claim that the *Minnesota* and *Dakota* were the 'most comfortable and superbly furnished passenger steamers on the Pacific Ocean.' About seventy intermediate-class passengers could be carried, while the steerage accommodation, which had been designed with troop-carrying in mind, could be expanded to almost any extent desired in the 'tween-deck space.

As the accompanying photograph suggests, the liners were imposing in appearance. The black tops of their single large yellow funnels rose a

[15] The *North West* and *North Land* had Belleville boilers; those in the *Minnesota* and *Dakota* were Niclausse type – an early design, which was quickly superseded. In the *Dakota* the total heating surface was 40,614 square feet; the grate area 1,088 square feet.

[16] A longitudinal section of the *Minnesota*, showing this peculiar bunker design, appears in the *Pacific Marine Review*, I (December 1904), 3.

[17] Statistics regarding the passenger capacity of the two liners vary widely. Gunderson, 'Description of Steampship *Dakota*, p. 365, states that she could accommodate 206 cabin, 66 intermediate cabin, and 735 troops or steerage passengers, a total of 1,007. *G.N.S.Co. Memo.* states that the ships could carry 250 first class, 68 European steerage, and 1,500 Asiastic steerage, or a total of 1,818. Stacy in *Review of Reviews* (1903), p. 566, increases the steerage capacity to 2,400, and the total to 2,755. The 11th edition of the *Encyclopaedia Britannica* boosts the total still further to 2,850! Gunderson is probably the best authority. No record of the number of passengers carried by the liners seems to have been preserved, but it was not large. On her maiden voyage the *Minnesota* carried 24 first class, 12 intermediate class, and 105 steerage passengers, or 141 persons in all. In 1906 the *Dakota* sailed from Seattle with a party of special excursionists. The number of first class passengers was 194, and the ship was said to be sold out and turning people away. See *Pacific Marine Review*, III (September 1906), 32. This was probably by far the largest cabin list ever booked by either of the two ships.

full hundred feet above the water-line. When commissioned they hoisted the house flag that all Hill's ships—the *North West* and *North Land* on the Great Lakes, the *Minnesota* and *Dakota* in the Oriental trade, the *Great Northern* and *Northern Pacific* on the Pacific Coast, and his private yacht *Wacouta*—flew in common: a flag of complicated but attractive design, consisting of a white star on a navy blue circle, the whole superimposed on a cardinal field, through which white bars ran diagonally from the circle to the corners.[18]

Hill expected to have his steamers ready for service in two years, but it quickly became apparent that this was not to be. It took time for the Eastern Shipbuilding Company to build and organize its new yard, and it was not until 15 January 1901, or nearly eleven months after the signing of the contract, that a keel could be laid. The elaborate system of overhead trolleys which was to serve the two slipways was not in full operation until as late as September 1901.[19] Delay followed delay, and the *Minnesota,* first of the two liners, was not launched until 16 April 1903. Miss Clara Hill, daughter of James J. Hill, performed the christening ceremony. The big hull ran about a mile before three tugs brought it under control and towed it to the fitting-out berth. A crowd of more than forty thousand witnessed the launching, which the local press described as 'the most magnificent marine spectacle of the century.'[20]

The *Dakota* was expected to reach the launching stage two months after the *Minnesota;* but once more plans went awry, the two months stretched to ten, and she did not go afloat until 6 February 1904. The fitting out of the *Minnesota* likewise met with delays. Sixteen months instead of eight were required for her completion, and she was not ready for delivery until August 1904.[21]

Under the circumstances it is not surprising that Hill became disheartened, even before the first of his huge new ships was placed in commission. His feelings can be judged from the evidence he gave in May 1904 before the Merchant Marine Commission. Two excerpts are particularly revealing. On the question of shipbuilding in the United States he said:

I [have] had an experience in the building of two very large ships, and I am quite sure I do not want any more. . . . We expected to finish them in two years, and it has

[18] See *Pacific Marine Review,* XIII (February 1916), 65.

[19] Stacy in *Review of Reviews* (1903), 570.

[20] *The Day,* New London, 16 April 1903.

[21] The *Minnesota* was completed on 17 August 1904; the *Dakota* on 22 March 1905. *G.N.S.Co. Memo.*

taken nearly four, strikes and other difficulties following each other. I would rather undertake to build a thousand miles of railway than to build two ships.[22]

A further remark throws light upon his attitude towards the whole trans-Pacific project:

I should be very glad if our ships held their own. We put them on simply because it was an incident to our other business and for the purpose of finding a new market – a market we have not now – for the surplus raised on the line of our railway, and so that we can load our cars in both directions. It is really an incident to our railroad enterprise, and we did not go into it with a view of entering the shipping business.

And he added:

If anybody would take the ships off our hands and agree to run them for a term of years, we would make very liberal terms with him.[23]

It was in this frame of mind that Hill took delivery of the *Minnesota*. The first entry in her abstract log reads: 'August 17, 1904. 12:30 Tugs commenced to haul ship away from the Eastern Shipbuilding yard, using ships engines as required.'[24] Captain John Truebridge was in command. Strange to say, in spite of her size and importance the liner left the yard without having had her machinery thoroughly tested, and was accepted by her owners without having run any trials. As a result she ran up substantial bills for replacements, adjustments, etc., over a period of many months, and at ports as widely spaced as Philadelphia, Coronel, Seattle, and Yokohama.

From New London the *Minnesota* proceeded under easy steam to New York, and thence to Newport News, where she was drydocked for cleaning and painting. Once more afloat, she made several runs on the measured mile. Press reports state that she worked up to 17.25 knots,[25] but she was running so light that this speed bore little relation to what might be expected in service. She next loaded coal, supplies, and cargo at Philadelphia and Norfolk, preparatory to the long voyage around Cape Horn to Seattle. At Norfolk she experienced her first bunker fire. A second

[22] *Report of the Merchant Marine Commission Together with the Testimony Taken at the Hearings* (Washington: Government Printing Office, 1905), I, 165. Hill's testimony runs to some twenty pages.

[23] Ibid., p. 166.

[24] G.N.S.Co. Records. This log, the only log or abstract log which seems to be extant, commences on 17 August and breaks off abruptly on 3 December 1904, when the *Minnesota* was between Coronel and San Francisco. Most of the details of the voyage to the Pacific are from this source.

[25] *Daily Times*, Victoria, B. C., 23 December 1904 (in which appears a detailed account of the *Minnesota*, her voyage, and her arrival). The mean speed attained was apparently 16.03 knots. See the accurate and useful account of the early career of the *Minnesota* printed in the *Daily Times* for 15 November 1915.

followed within a few days, and a third and fourth within a month. These were only the first of many similar outbreaks which were to mar the big ship's career. Most of them can probably be attributed to the unorthodox design of her bunkers.

The *Minnesota* finally got away from Hampton Roads on 1 October 1904, bound for Cape Horn and the Pacific. Calls were made at Bahia, Coronel, and San Francisco. She travelled slowly, averaging no more than 10 to 12 knots.[26] After a passage of eighty-two days she anchored off Victoria, B. C., on the evening of 22 December. Here she had the misfortune to lose her starboard anchor and thirty fathoms of cable. Like the Pacific Mail Company, Hill planned to man his ships with Chinese firemen and stewards, and the *Minnesota* paused off Victoria for the purpose of picking up the Chinese who were to join her crew. The next day she sailed on to Puget Sound, and towards evening tied up in Seattle, which was to be her home port for a decade to come.

A month later, on 23 January 1905, the *Minnesota* sailed on her maiden voyage to the Orient. Captain J. H. Rinder was in command. Hill's hopes seemed to have come true, for she carried the largest cargo ever loaded by a single vessel up to that time. It totalled 26,000 tons measurement, and consisted chiefly of cotton, lumber, and copper ingots.[27] Outward bound the *Minnesota* made a slow passage of eighteen days to Yokohama, and then went on to Kobe, Nagasaki, Shanghai, and Hongkong. On the homeward run she made better time, crossing from Yokohama in just over fourteen days at an average speed of 12½ knots. She improved upon this somewhat on later voyages, but seems rarely to have exceeded an average of 13½ knots. Operating on the long run to the Orient this meant that she could not be scheduled to make more than four round voyages a year.

Meanwhile the *Dakota* had at last been completed. Having learned wisdom from their experience with the *Minnesota,* the Great Northern Steamship Company asked that the *Dakota* be much more carefully tested before delivery, and amongst other things she made a twenty-four hour run to sea. After drydocking she ran a further series of trials on 1 April 1905, when she averaged 17.1 knots for three hours. This record, like the *Minnesota's,* was made when the ship was running light, and displacing no more than 17,000 tons, or less than half the designed maxi-

[26] Between Coronel and San Francisco, 5,304 miles, the steaming time was 20 days 20 hours 26 minutes, the average speed being 11.8 knots. G.N.S.Co. Records.

[27] Full particulars of the cargo, which was valued at $1,908,392, are given in the *Pacific Marine Review,* I (February 1905), 9. It totalled 10,600 tons dead weight.

mum.[28] For some reason her coal consumption was not exactly ascertained. Judging from the official estimate, however, it was relatively high, and was probably as much as forty per cent in excess of that of some contemporary British-built liners of comparable power.[29] Boiler trouble and bunker fires soon added to the total, and it seems clear that the *Dakota* and *Minnesota* were actually the coal-eaters that water-front gossip declared them to be.

The *Dakota* made a relatively fast pasage of fifty-nine days from New York to Seattle, where she arrived late in June 1905. Her first trans-Pacific sailing was scheduled for 24 July. In the interval the *Minnesota* arrived from the Orient, having concluded her second round voyage. The *Minnesota's* second outward sailing had taken place in a blaze of publicity, because her huge hatches had enabled her to stow no less than seventy railway locomotives in her holds, in addition to a large general cargo. But the voyage had been marred at the start by engine trouble, and, much more serious, it had been discovered at Nagasaki that her stern-post was cracked. Temporary repairs were made enabling her to carry on until a new casting could be secured. On 24 July the *Dakota* duly sailed on her maiden voyage; but the next day she returned to Seattle with her port propeller disabled. When placed in the drydock at Bremerton Navy Yard it was found that she, too, had a fractured stern-post. The *Minnesota* and *Dakota* were by no means the only big ships in which castings proved defective,[30] but it was sheer bad luck to have them both develop fractures so early in their careers.

The *Dakota* was patched up at Bremerton and finally sailed for the Orient, under the command of Captain Emil Francke, on 20 September 1905. Nearly six years thus passed between the signing of the contract for her construction and her first voyage, instead of the two or three years that Hill had anticipated. Her cost, too, had far exceeded expectations. Between them the *Minnesota* and *Dakota* cost no less than $7,803,504.[31] Hill obviously paid dearly for his choice of a shipbuilder, for this cost was clearly excessive when compared with that of passenger liners produced by other American shipyards in the same period. Thus between 1902 and 1904 the Pacific Mail Company completed four new steamers

[28] Gunderson, 'Description of Steamship *Dakota*,' p. 399.

[29] According to Gunderson (p. 400) the official estimate was 1.75 lb. of coal per I.H.P. per hour. The consumption of the Cunard liner *Ivernia*, with engines of 10,400 I.H.P., was only 1.29 lb.

[30] The Pacific Mail liner *Siberia* suffered a similar accident in 1904. Repairs cost $82,656, and her owners sought to recover the sum from the builders, on the ground that the stern-post had not been 'of sufficient or proper strength.' The Court ruled the owners must stand the loss. See *Pacific Marine Review*, II (June 1906), 13-14; (October 1906), 7.

[31] G.N.S.Co. Records.

for very little more than the cost of Hill's two ships.[32] True, they were much smaller vessels; but they were also very much faster, and their aggregate tonnage exceeded that of Hill's two liners.

Because of their slow speed the *Minnesota* and *Dakota* could not offer a sailing more than once in six weeks. One way of giving a more frequent service would have been to operate them in conjunction with the steamers of the Nippon Yusen Kaisha. Relations between the Nippon Yusen Kaisha and the Great Northern Railway were not disturbed by the appearance of Hill's own ships, and the two companies maintained agencies in common and continued their traffic agreements for many years. But in 1905 the Russo-Japanese War was still in progress, and the Nippon Yusen Kaisha liners had been requisitioned by the Japanese Government. Moreover, even if conditions had been normal, Hill would doubtless have given a preference to ships under the American flag.

Two suitable American vessels happened to be available. Indeed, Hill himself was indirectly responsible for their presence in the Pacific. In 1901 the Northern Pacific Steamship Company,[33] a subsidiary of the Northern Pacific Railway, prepared plans for six new steamers to replace the old ships and chartered tonnage that it was then operating between Tacoma and the Orient. That same year, however, Hill gained control of the Northern Pacific, and with the *Minnesota* and *Dakota* under construction he took steps to see that the rival building program — which in the opinion of many was much more soundly conceived than his own — was dropped.[34] In its stead the Northern Pacific was permitted to enter into a contract with the Boston Tow Boat Company, and its subsidiary, the Boston Steamship Company, under the terms of which these companies would place four or five modern steamers on the trans-Pacific run.[35] The largest of the vessels in question, the sister ships *Shawmut* and *Tremont*, were new twin screw steamers of 9,606 tons gross, with a service speed of 12 knots.[36] They arrived in the Pacific in 1902 and were thus well

[32] The aggregate cost of the *Siberia*, *Korea*, *Manchuria*, and *Mongolia* was $7,900,000. Evidence of R. P. Schwerin in *Report of the Merchant Marine Commission*, II, 1331.

[33] Northern Pacific Steamship Company, a subsidiary of the Northern Pacific Railway, was organized in 1901 to take over the steamers and service of the original Northern Pacific Steamship Company, which had commenced operations in 1892. Despite its name, the older company had neither been owned nor controlled by the railway, though it had had traffic agreements with it. See W. Kaye Lamb, 'Pioneer Days of the Trans-Pacific Service. 1887-1891.' *British Columbia Historical Quarterly*, I (1937), 162.

[34] See for example *Report of the Merchant Marine Commission*, II, 1067-68.

[35] The contracts were evidently concluded in April 1902, and were extended to include the Great Northern Railway later in the year.

[36] Built by the Maryland Steel Company, and completed in 1902. Over-all length 505 feet; registered dimensions 489.5 x 58.0 x 28.9; dead-weight carrying capacity 11,000 tons; displacement 17,200 tons. For an illustrated description see *Marine Engineering*, VII (1902), 1-4.

established in the trade before the *Minnesota* and *Dakota* appeared. The contracts with the Northern Pacific had been extended to include the Great Northern, and a joint operating schedule was thus easy to arrange.

Hill's trans-Pacific venture reached the height of its fortunes in 1906. His primary service, under the American flag, was then maintained by the *Minnesota* and *Dakota,* in combination with the *Shawmut* and *Tremont.* A secondary service, which extended to Manila, was maintained jointly by three steamers of the Boston Tow Boat Company[37] and three Nippon Yusen Kaisha liners, which had by then returned to their regular run. With ten ships linking his railways with the Orient, including the largest liners on the Pacific and the greatest cargo carriers afloat, Hill may well have felt that he was leaving his competitors behind.

For a year and more all went reasonably well. The low speed of the *Minnesota* and *Dakota* made it difficult for them to compete with the faster Pacific Mail and Canadian Pacific steamers for the first class passenger trade, but freight shipments were heavy. Then came a sudden and crippling blow — the loss of the *Dakota.* Misfortune overtook the liner on the last lap of her seventh outward voyage from Seattle. On 3 March 1907 she was approaching Cape Nojima, around which she would swing on her way to Yokohama, distant some forty-two miles. The weather was clear and Captain Francke supposed the vessel to be about a mile and a half from shore. Actually he had overestimated the distance by half a mile, but through overconfidence he took neither bearings nor soundings to verify his position. Suddenly at 5.04 P.M. the *Dakota* crashed upon a reef, later found to be Kiukone Rock, off Shirahama. She struck heavily, as she was deeply laden and was travelling at her full speed of 14 knots. Within seven minutes the engine room filled to the top of the engines, rendering her completely helpless. Within twenty-five minutes her bow sank out of sight, leaving the huge hull perched precariously on the reef at so steep an angle that the stern was lifted clear of the water.

The *Dakota* was quickly abandoned, and the 726 persons on board all reached land safely. The wreck was carefully examined by Captain Fred Young, of the Liverpool Salvage Association, who advised strongly against any attempt to refloat the liner. Events soon proved the wisdom of this view. On or about 23 March the *Dakota* broke in two, and the greater part of the hull sank from sight. A photograph taken on the last day of the month shows only the tip of her stern above water.[38]

[37] *Lyra,* 4,417 tons gross; *Hyades* and *Pleiades,* each 3,753 tons gross.

[38] Details from *Pacific Marine Review,* IV (May 1907), 18, 20, where the report of the Local Inspectors, Steamboat Inspection Service, Seattle, dated 18 May 1907, is printed in full.

The wreck of the *Dakota* caused a sensation, for at the time she was by far the largest and most costly vessel that had ever been lost. The official inquiry found that the accident was caused entirely by the error in the captain's estimate of his position;[39] but the underwriters seem to have thought that other factors might have played a part. For one thing it was no secret that the *Minnesota* and *Dakota* were difficult to handle, owing to their full lines, sheer bulk, and relatively low engine power. For another, two of the new Pacific Mail steamers, the *Manchuria* and *Mongolia,* had both been ashore recently. The hazards of the trans-Pacific route therefore loomed large in the underwriters' eyes and when the insurance on the *Minnesota* expired a few months later the new premium was charged at more than twice the old rate.[40]

Hill had no intention of replacing the *Dakota,* and the *Minnesota* was left to carry on with the *Shawmut* and *Tremont* as best she could. The most serious problem to be faced was the competition of foreign lines, and, ironically enough, in particular that of the Japanese. It will be recalled that it was Hill himself who had persuaded the Japanese to enter the trade in the first place; but that did not make their competition any less formidable when he decided to build and operate his own steamers. Ship subsidies, export bounties, lower wage scales, and lower operating costs gave the Japanese great advantages. In the case of the Boston Steamship Company they soon proved decisive. By 1908 it was apparent that the *Shawmut* and *Tremont* would have to be withdrawn. Late in the year they were sold to the Isthmian Canal Commission (which meant in effect to the United States Government) and left the Pacific to commence a new and successful career on the New York-to-Panama route.[41] Presently the three smaller steamers owned by the Boston Tow Boat Company were withdrawn as well. This process of elimination continued, and the *Minnesota* was soon the only American steamer in regular service between Puget Sound and the Orient.

Difficulties and disappointments at home added to Hill's troubles. The Great Northern Steamship Company did not escape the labor prob-

[39] Captain Francke appealed to the Supervising Steamboat Inspector in San Francisco, but the latter found that the wreck had been caused by 'unparalleled negligence and unskillfulness' on Francke's part, and that there were no extenuating circumstances. Ibid. (July 1907), 15.

[40] Ibid. (September 1907), 25.

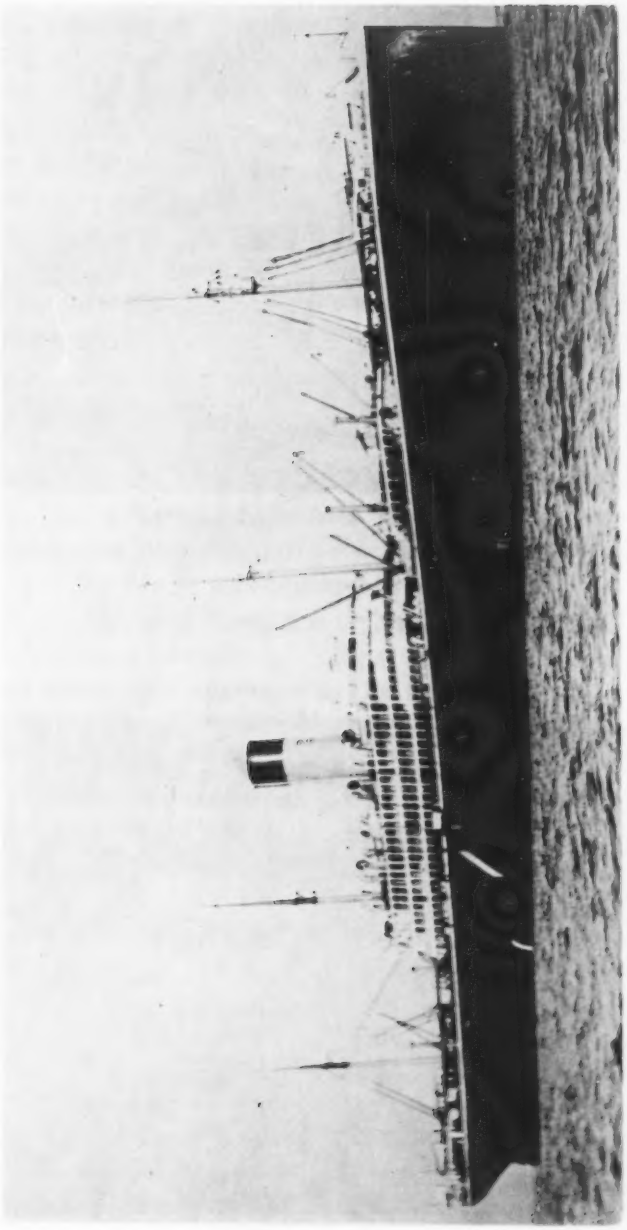
[41] When transferred to the Atlantic the *Shawmut* was renamed *Ancon* and the *Tremont* became the *Cristobal.* They were operated between New York and Panama by the Panama Railroad Company until just before the outbreak of the present war, when they were replaced by new liners bearing the same names. The *Ancon* was the first commercial vessel to make the complete transit of the Panama Canal. In 1941 the *Ancon,* renamed *Permanente,* and owned by the Permanente Cement Company, was given a $200,000 overhaul at the Todd Yards in Seattle. When last heard of the *Cristobal* was being refitted in the same yard.

lem. ('You can enforce a contract against a blackbird in the air as easily as you can against a sailor,' Hill had remarked, when giving evidence before the Merchant Marine Commission.) The intended division of rates between the Great Northern Railway and the Great Northern Steamship Company was upset by rulings of the Interstate Commerce Commission. The railway was compelled to charge more than expected; hence, if competitive through rates were to be maintained, the steamship company had to charge less. Under these circumstances there was no hope that the *Minnesota* would make a profit. True, she was really owned by the railway, and to a great extent it gained what she lost; but there were many ways in which the redistribution complicated matters. Finally, it gradually became evident that there was little hope of any government assistance for American shipping. The question had been widely discussed and officially investigated shortly after the turn of the century, and at the time the *Minnesota* and *Dakota* were built it seemed reasonable to assume that a subsidy of some kind would be forthcoming. Hill personally favored an export subsidy, on the grounds that if there were no trade there would be no pay, and that there could be no possibility of empty ships running at the taxpayers' expense. But neither this nor any other suggestion was acted upon.

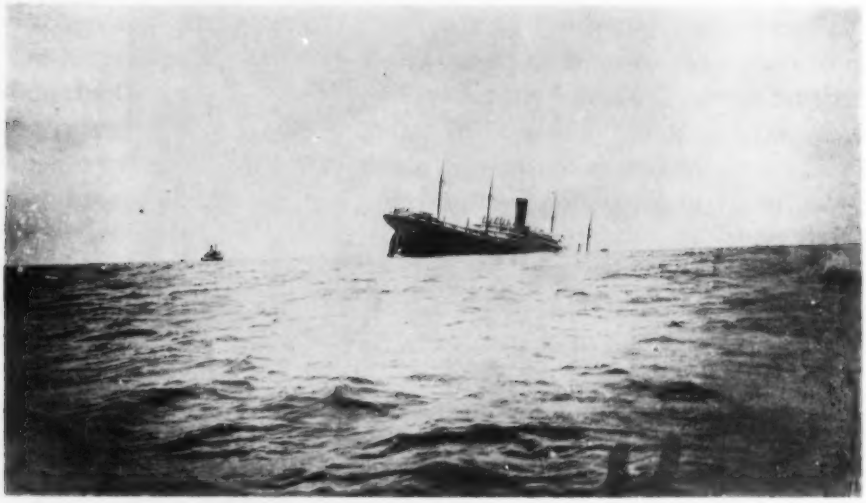
Her great size was a serious handicap when the *Minnesota* was left to carry on alone. The large scale trades in wheat, cotton and steel for which she had been designed had failed to materialize. As a result it was difficult to accumulate sufficient cargo to fill her vast holds. Moreover, owing to her low speed she could not offer a sailing more frequently than about once in ninety days. Shippers, however well disposed they might be, could rarely afford to wait for weeks and even months in order to patronize the vessel. Nevertheless the Great Northern Steamship Company contrived to keep her in commission, and for seven years following the loss of the *Dakota* she plodded back and forth across the Pacific at her modest gait of 12 to 13 knots. Her schedule called for four round trips per annum. Indeed, her movements might almost be described as seasonal, as contemporary reports refer to her spring, summer, and winter voyages.

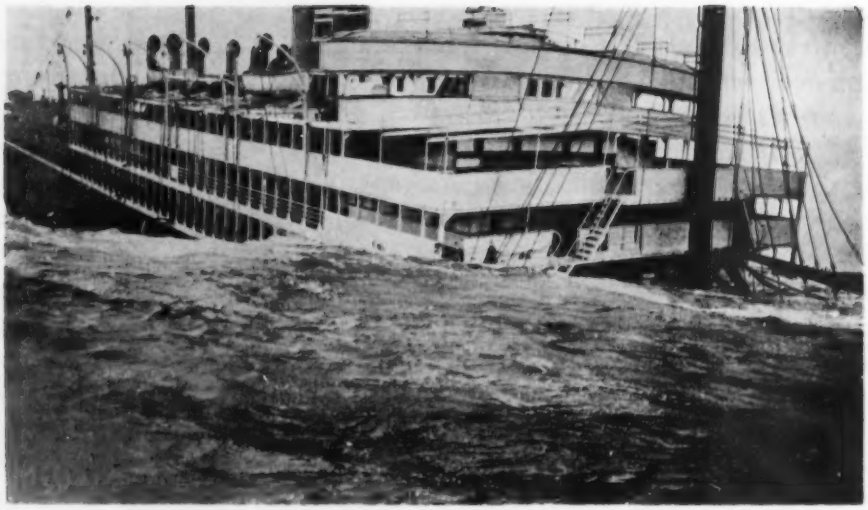
She had her quota of small misfortunes, but these seven years were relatively trouble-free. Her only serious mishap occurred early in March 1911, when she broke a shaft when 1,500 miles out from Yokohama.[42] She crawled back to Nagasaki, where temporary repairs were made, and then sailed direct to Seattle. Permanent repairs took some time, and she missed her spring sailing to the Orient.

[42] *Post-Intelligencer*, Seattle, 4 March, 13 April 1911.



Minnesota
Great Northern Steamship Company





Wreck of the *Dakota*, 1907

Reproduced by courtesy of the Great Northern Railway from photographs in the records of the Great Northern Steamship Company, St. Paul.

When this accident occurred the *Minnesota* was commanded by Captain Thomas W. Garlick, the best known of the four skippers who in turn had charge of her. Captain Rinder, her first master on the Pacific run, resigned suddenly in 1906, owing to a dispute with the purser. The Company sided with the latter, and sent the *Minnesota* to sea under Captain Charles Austin, her Chief Officer.[43] He was confirmed in his command and remained in her for nearly three years. Captain H. W. Ravens next made a single round trip to the Orient, and then gave place in September 1909 to Captain Garlick.[44] Garlick was a rugged old sea dog, and an able and popular commander. He knew the run to the Orient well, as he had previously been master of the *Tremont* in the same trade. The Great Northern Steamship Company was fortunate in securing him, and appreciated the fact. Garlick, on his part, seems to have developed an affection for the *Minnesota,* for he stayed with her to the end of her active days.

For a time the outbreak of the first World War upset all trade across the Pacific, and in September 1914 the *Minnesota* was laid up in Seattle. Early in 1915, however, it was decided to place her in commission again, and in February she sailed for the Orient. All went well until she left Nagasaki, homeward bound, on 11 April. Evening found her in Bungo Strait, the southwestern entrance to the famous Inland Sea. The night was calm, but the weather was thick and foggy. Cautiously feeling her way, the *Minnesota* was caught by an unsuspected current. Swept several miles from her course, she grounded on the rocks off Uwajima.

Though her bow was high and dry at low tide, it was not thought at first that the vessel was in any danger. The seriousness of her plight only became evident when neither salvage tugs nor the united effort of three Nippon Yusen Kaisha steamers proved able to haul her back into deep water. In the end it was found necessary to dynamite a pinnacle of rock upon which she was impaled. Unfortunately the charge was inexpertly handled and one workman was killed; but the pinnacle was cleared away, and after three anxious weeks the *Minnesota* was refloated on the first day of May.[45]

By the time she had been repaired at Nagasaki and had returned to Seattle it was known that her days on the Pacific were numbered. On 4 March 1915 President Wilson had signed the Seamen's Act, which, if

[43] *Pacific Marine Review,* III (October 1906), 27.

[44] G.N.S.Co. Records.

[45] For details see *New York Times,* 13, 14, 15 April 1915; *The Times,* London, 14, 21, 27 April, 4 May 1915; and *Daily Province,* Vancouver, B. C., 12, 13, 16, 20 April, 1 May 1915.

rigidly enforced, would have greatly increased the running costs of American steamers. In the case of the *Minnesota* it was estimated that the increase would amount to $140,000 annually. It was no secret that the *Minnesota* lost money regularly, and was only retained in commission because she brought considerable freight business to the Great Northern Railway.[46] In addition, her owners were aware that her boilers were in bad condition, and would probably have to be replaced, at great expense, before long. Under the circumstances the Seamen's Act tipped the scales decisively against further operation of the vessel on the Pacific. It was decided to send her to the Atlantic, where freight rates had reached fabulous heights owing to the war, and where it was likely that she could be disposed of to advantage.

Meanwhile she made one last voyage to the Orient. It was uneventful, except that it included a special call at Vladivostock. Bidding farewell to the familiar ports which she had frequented for a decade, the *Minnesota* made her leisurely way homeward to Seattle, where she completed her fortieth and last round voyage, and her eightieth trans-Pacific crossing, on 8 October 1915.[47]

She was at once placed on berth to load for the United Kingdom, under charter. The protection afforded by the American flag and the size of the *Minnesota's* holds offered a rare opportunity, and she was loaded down with a capacity cargo, consisting mostly of foodstuffs. Although the Panama Canal had been completed, she was too heavily laden to pass through it, and it was intended that she should take the long route around Cape Horn.

Of this voyage it may be said that almost everything went wrong. It was extremely difficult to muster a crew, and the 175 men who finally sailed in her were a motley lot. More serious was the boiler problem. Tubes blew out and boilers broke down even while she was still in port. Weeks passed before they could be patched up sufficiently to let the vessel get away. Even then it is clear that more trouble was expected, for a number of boilermakers sailed with the ship.

[46] The financial results of the operation of the *Minnesota*, 1905-1915, were: revenues, $3,319,979.94; operating expenses, $6,207,962.13; operating loss, $2,887,982.19. G.N.S.Co. Records. In spite of this the Comptroller of the Great Northern Railway states that the liner 'was a profitable venture as a whole, due to the business it brought to the Great Northern Railway System.' G. H. Hess, Jr., to the writer, 13 August 1942.

[47] Officially this was listed as voyage 42, as voyage numbers had been assigned to two long periods of lay-up. G.N.S.Co. Records. When she was withdrawn it was estimated that the *Minnesota* had carried 400,000 tons measurement of cargo to the Orient (or an average of 10,000 tons per voyage), and 160,000 tons from Oriental ports to Seattle. *Daily Times*, Victoria, B. C., 15 November 1915.

She finally left Seattle on 14 November 1915. For a time things went not too badly. Though the inevitable fire had been discovered in one of the bunkers, and more boiler trouble occurred, Captain Garlick sailed bravely past San Francisco and struggled on southward. But within a few days the situation became more serious. Boiler tubes commenced to burst at the rate of a dozen a day, even when the pressure was barely half that for which the boilers had been designed. The crew labored manfully, but the steam supply dwindled steadily. Seven men were scalded or otherwise injured in the course of desperate efforts to keep the vessel moving. At last on 1 December, when the *Minnesota* was about 760 miles south of San Francisco, Garlick was compelled to admit defeat and send out a wireless call for assistance.

The salvage steamer *Iaqua* and a tug left San Francisco on the third, and by the seventh they had reached the *Minnesota* and taken her in tow. Three additional tugs were dispatched later, and with the aid of these five craft the *Minnesota* crawled through the Golden Gate on 14 December, a month to the day after she had left Seattle. In the interval a rare crop of rumors had gone the rounds which blamed the breakdown to saboteurs, attributed her troubles to German spies, and even reported her in the hands of mutineers. In reality the sole cause of her distress was that her water-tube boilers, which were of a design long since outmoded, had finally collapsed for good and all.[48]

This became apparent when the vessel was surveyed, and her owners announced that she would remain in San Francisco indefinitely, to be fitted with new boilers and to receive other extensive repairs. The contract for the work was awarded in January 1916 to the Union Iron Works; the sum involved is said to have been as much as $400,000.[49] Although she was not expected to be ready for sea for many months, only part of the *Minnesota's* cargo was unloaded. For most of the time she was under repair she lay at anchor in San Francisco Bay, about a mile and a half from the works. She was given a somewhat bizarre appearance by her funnel, which was cut from its base to permit the removal of uptakes and boilers, and left standing on one side of the boat deck.

The installation of sixteen new water-tube boilers took less time than anticipated, and steam was raised on 28 August 1916. By 29 September the *Minnesota* was ready for a trial at sea. A five-hour run showed that she could maintain a speed of 14 knots, using only fourteen of the sixteen

[48] *San Francisco Chronicle*, 2, 12, 13, 15 December 1915; *Daily Times*, Victoria, B. C., 3, 7, 8, 14, 15 December 1915.

[49] *San Francisco Chronicle*, 1, 22 January 1916.

boilers.[50] Preparations for the continuation of her interrupted voyage were going forward when new difficulties developed, this time of a financial nature. There was trouble about insurance. Later the vessel was seized by the United States Marshal, representing ten British firms that had been promised delivery of the *Minnesota's* cargo by February 1916. At one time libels against the ship were reported to total $466,718.[51]

Meanwhile negotiations for the sale of the *Minnesota* had met with success. Late in January 1917 it was announced that she had been purchased by the Atlantic Transport Company of West Virginia, one of the lines controlled by the International Mercantile Marine. The price paid was $2,690,000.[52] As her new owners were anxious to place the *Minnesota* on the Atlantic run as soon as possible, she was lightened sufficiently to enable her to pass through the Panama Canal. Leaving San Francisco on 14 February—exactly fifteen months after her original departure from Seattle—the *Minnesota* made a relatively quick voyage, and arrived in New York on 8 March.

Six weeks later, on 25 April 1917, she sailed on her first trans-Atlantic passage. Her destination was Liverpool, to which most of her war-time voyages were made. It is interesting to note that the Great Northern Steamship Company did not immediately lose contact with her, as a portion of the sale price had been made contingent upon the *Minnesota's* earnings for her new owners. This obligation had been met by the end of her sixth round trip, which ended in March 1918. At this point the active career of the Great Northern Steamship Company came to an end, as it never acquired any other vessels, nor engaged in other business. In spite of this it remained legally in existence for another nine years, and was not formally disincorporated until 27 September 1927.[53]

In October 1917 the *Minnesota* had been taken over by the United States Shipping Board, and she continued to operate under its control until the end of the Great War. Like other liners at the time she was armed, and in this respect seems to have fared better than most. Instead of a single gun at the stern she carried four 4-inch guns and four others of smaller calibre.[54] On the Atlantic the *Minnesota* at last fully justified her existence, for she carried cargo after cargo of record proportions to Great

[50] For details see *International Marine Engineering*, November 1916, pp. 492-93. The sixteen new Union Heine water-tube boilers had a heating surface of 43,500 square feet (as compared with 40,615 square feet in the old boilers). The steam pressure of both old and new boilers was 250 pounds.

[51] *Daily Times*, Victoria, B. C., 20 January 1917.

[52] G.N.S.Co. Records.

[53] *G.N.S.Co. Memo.*

[54] *Journal of Commerce*, Liverpool, 16 January 1924. This issue contains a history of the *Minnesota* that is useful and interesting, but in some respects inaccurate.

Britain and France.[55] True, not even her boiler troubles ended when she was refitted, but no major calamities befell her, and she rendered services of the greatest value as a freighter and transport.

At the conclusion of hostilities it was intended that the *Minnesota* should be reconditioned for the New York to London service of the Atlantic Transport Line, in which her running mate was to have been the new 17,000-ton *Minnekahda*. The records of *Lloyd's Register of Shipping* show that in January 1920 she was converted to burn oil fuel; but her renovation seems to have been carried no further. Plans to recondition her were definitely abandoned when the drastic restrictions on immigration went into effect, as the projected service was intended to cater primarily to third class trade.

The *Minnesota* lay in idleness for the rest of her days except for one brief interlude in the spring of 1921. In February of that year a typhus scare developed in the port of New York, into which refugees were pouring from the plague ridden countries of Central Europe. On 15 February, acting on behalf of the North Atlantic Steamship Conference, the International Mercantile Marine turned over the *Minnesota,* free of all cost, to the Health Officer of the port, to be converted (in the words of the *New York Times*) into a 'cleansing clearing station'—or, in plain English, a delousery.[56] She was quickly fitted up with cots for typhus suspects, and steam chambers for disinfecting clothing and baggage. Having fulfilled this useful if undignified purpose she relapsed once more into idleness.

Particulars of her last days are scanty, and the only details available are to be found in the press. In January 1923 she was sold for breaking up to Merritt-Chapman & Scott. In May she was resold to new buyers, who in June disposed of her to German shipbreakers. The price was reported to be $117,000, delivered in New York.

In November a tug arrived from the other side of the Atlantic to tow her to Germany, and on 2 December the *Minnesota* left an American harbor for the last time, ignominiously, at the end of a hawser, bound for Wilhemshaven. On the seventeenth she was at the Azores and reported all well. But one final misfortune was to befall her. On the last day of 1923, when almost at her destination, she once again lived up to her reputation of being difficult to handle, and stranded on the Minsener

[55] Captain Garlick told officials of the Great Northern Railway in St. Paul that on her last voyage the *Minnesota's* cargo actually totalled 32,000 tons measurement. Not only were her holds full, but her decks were piled high, and merchandise was even suspended from her rigging. G.N.S.Co. Records.

[56] *New York Times*, 15, 16 Feburary 1921.

Sands, in Jade Bay, off Wilhelmshaven. Her name appeared briefly in the marine insurance column of the London *Times*. Then came news that she had been freed with the assistance of two tugs, and so completed her last journey.

ACKNOWLEDGEMENTS. Some of the most interesting details in this article were furnished by readers of the AMERICAN NEPTUNE in reply to a query printed as long ago as April 1941. Mr. Frank F. Henry, a director of the Great Northern Railway, forwarded several photographs and two memoranda, summarizing the information to be found in the surviving records of the Great Northern Steamship Company. Later Mr. George H. Hess, Jr., Comptroller of the Great Northern Railway, very kindly permitted the writer to examine these records personally, and secure further details. Photographs, clippings, etc., were loaned by Mr. Arthur C. Adams, of Norwich, Connecticut, and Mr. W. J. Gilman, of San Francisco. A long and most interesting letter was received from Lieutenant Commander C. S. Hoyt, U.S.N.R. Lieutenant John Haskell Kemble, U.S.N.R., the authority on trans-Pacific shipping, kindly read the article in draft and furnished invaluable notes and suggestions.

Signal Systems and Ship Identification

BY M. V. BREWINGTON

ONE of the most disconcerting parts of the study of ship pictures is the frequency with which completely unidentified portraits come to light. Seemingly many marine artists delighted in leaving the name off the bow or the stern of the vessel depicted. Or else a fine portrait is found bearing a name which internal evidence belies, and suspicions arise that someone for reasons best known to himself has tampered with the picture, perhaps giving the vessel a name where none appeared before, or perhaps altering that of some ordinary work horse to one of real distinction. More common though is the practice of changing a vessel's nationality: superimposing a United States ensign on a foreign flag, thereby increasing the sales appeal in this country. Unless one has access to the full equipment of an art laboratory with its apparatus for infra-red, ultra-violet, and X-ray photography, it is almost impossible to establish the fraud.

If the student goes through all that, thereby discovering the name or the ensign to be fictitious, or if there is a complete lack of name, with a great deal of luck he may find a verbal description of his ship, or perhaps another picture which will enable a shrewd guess as to the identity of his own. But at best he can only make a guess.

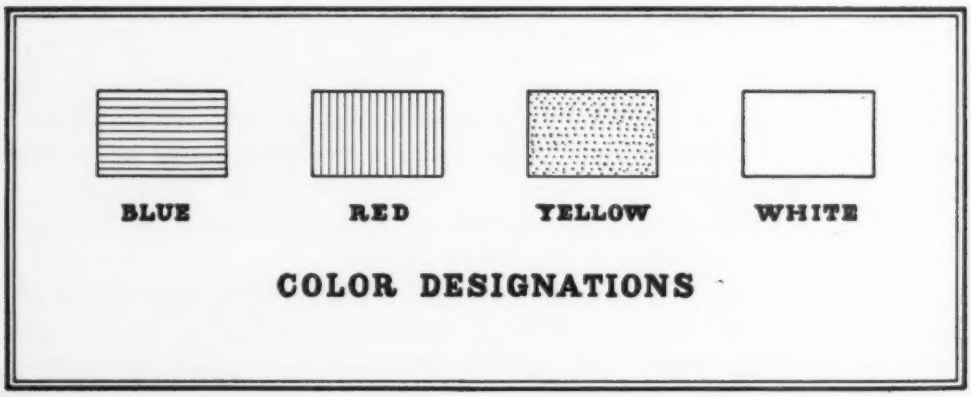
However there is frequently in the picture itself the means of positively fixing the identity of the subject. Very few marine artists neglected the opportunity to give their work the spots of colour which flags offered. The more conservative may have added only the ensign, but after 1820 especially, the chances are that a private signal would be put in, and many times a series of flags which properly interpreted will give the name of the vessel, her hailing port and other data.

If only the private signal, or house flag, is shown, the student has on his hands a piece of real detective work, for many of these flags apparently are unrecorded. But enough of them are known to at least make a good start.

For instance, the private signals of the Baltimore merchants were set down in full colours in 1802, 1806, 1817, 1852, and 1860 for the use of the watchers at the Marine Observatory on Federal Hill. Some of these are water-colours; others are coloured lithographs.[1] See Plate 27. Similar records of private signals were made up for the ports of Salem, Boston, New Bedford, New London, and New York. Possibly there are others. These give at times the name of the vessel but more often the name of the owner of the flag. If the first is found, the problem is solved; if the second, further search is needed. Recourse to the various registers of the shipping will enable one to compile a list of vessels whose ownership would have called for that particular flag. Eliminations by rig, or size, or peculiarities of design will reduce the field to such an extent that a search through other sources such as newspaper descriptions of launchings, or first sailings and arrivals is feasible.

A word of caution on the use of house flags must be given: in many instances a merchant in New York may have used the same design as that flown by a Baltimore or a Boston ship-owner. Hence it is always necessary to survey the whole field before one finally accepts or rejects a possible identification. This is not an easy matter for nowhere can there be found in one place reproductions of the known sheets of house flags. In addition to them the investigator will do well to consult the private signals given in many of the older handbooks of yacht clubs. Many of the shipping merchants of the sail era who became yachtsmen carried their private flags from business to pleasure.

[1] The Marine Observatory in Baltimore and other similar institutions in other cities and their private signals will be the subject of a series of notes to appear in THE AMERICAN NEPTUNE.



More satisfactory than the house flag is an identification established by signal flags. It is more rapid and, barring a fake hoist, it is positive.

The first system of signaling to make provision for one vessel telling a second or a shore station its name was that devised by Captain Frederick Marryat, R.N.[2] Doubtless Marryat is better known as a novelist than as a practical navigator and even less as a communication expert, but his system first made known in 1817 was one of the most widely used and one of the longest lived of all.[3] It was immediately adopted by Lloyds and reprinted in the United States. By 1831 it was used by the British and French navies officially; it had been translated into the chief maritime languages of Europe; and for many years was without a serious competitor. Many of Marryat's original flags are used today in the International Code.

At first it used sixteen flags altogether; ten numerals, a 'telegraph flag,' a 'rendezvous flag,' two 'distinguishing pendants,' a Union Jack, and a 'numeral pendant.' We are concerned only with the numerals and one 'distinguishing pendant.' In 1836 a second, in 1856 a third, and in 1869 a fourth 'distinguishing pendant' were added for vessel identifications. These flags and pendants are given in Figure 1.

To signal the name of a vessel, the master hoisted a distinguishing pendant over one, two, three, or four numeral flags. It was also permissible to hoist the pendant at another mast-head from that on which the signals were raised. The proper numerals to signify each vessel were assigned by the owners of the system: Marryat himself until 1841, thereafter by Messrs. J. M. and G. B. Richardson. These numbers were all published in the signal book, the list being brought up to date by new editions and supplements. Because Marryat or Richardson had no means of following the careers of American vessels, these were seldom dropped from the list even though they had disappeared from the seas years before.

As an example of the type of hoist needed in Marryat's system, the first distinguishing pendant with the flags representing 6237 stood for the *A. E. Moore,* while the second distinguishing pendant with the flags for

[2] Marryat was not the first to invent a system of ship identification signals. Eight years before his book was published, Nathaniel Shaler, a well-known New York shipmaster and privateersman worked out a scheme almost exactly like that afterwards developed by Marryat. Possibly because he found the embargo period inopportune, Shaler made no real effort to popularize his plan. See Shaler Papers, Historical Society of Pennsylvania, for a description of the system and a water-colour drawing of the flags.

[3] Captain Frederick Marryat, R.N., *A Code of Signals For The Use of Vessels Employed In The Merchant Service* . . . (London, 1817). When the Commercial Code, later known as the International Code was in the making, Marryat's editors changed the title of their work to *A Universal Code of Signals.* . . . The Marryat plate, which is reproduced as Figure 1, has, like the other illustrations of this article, been redrawn by Edward G. Brownlee so as to indicate the color designations of the flags.

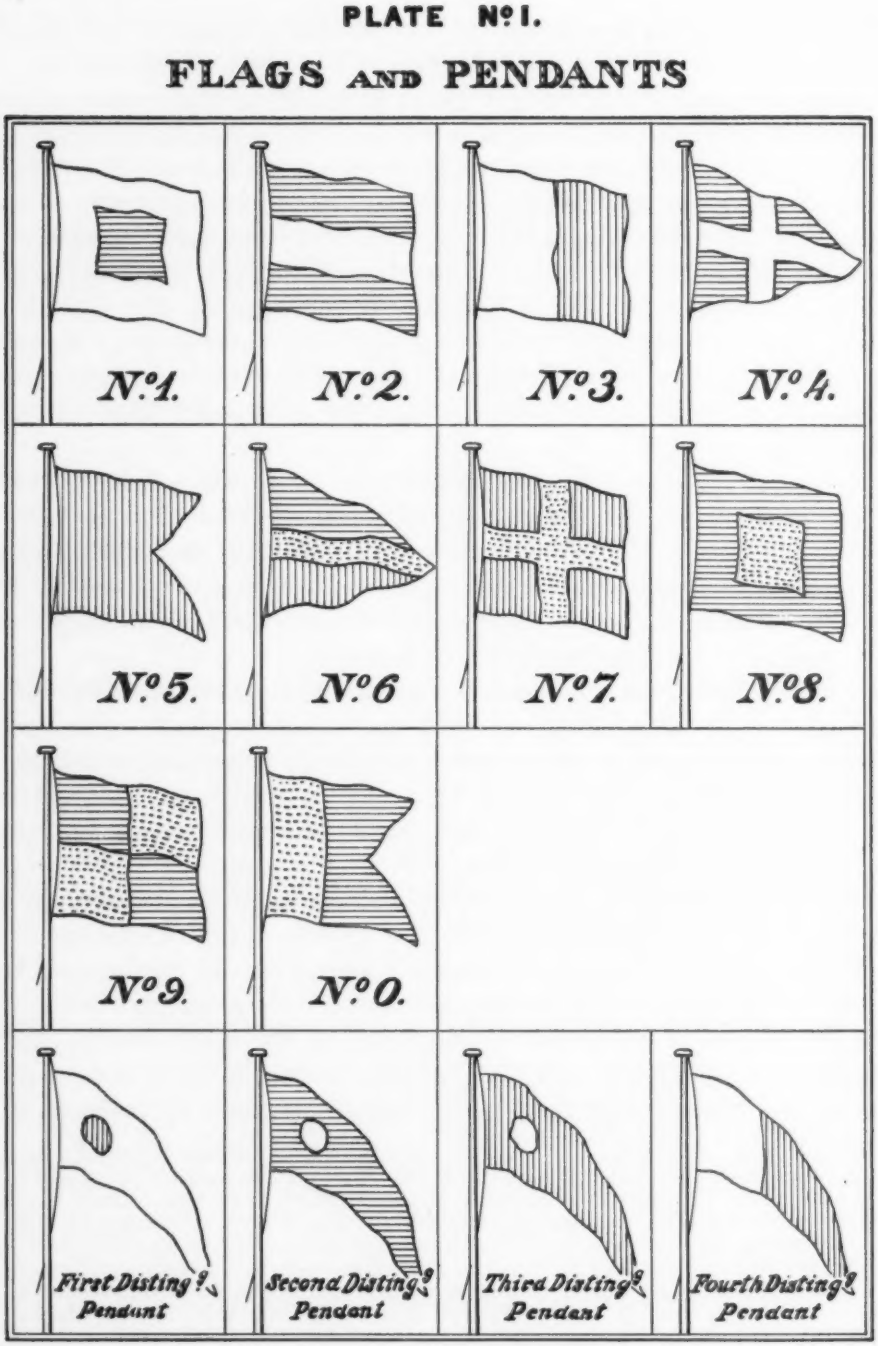


Fig. 1. Marryat's code flags

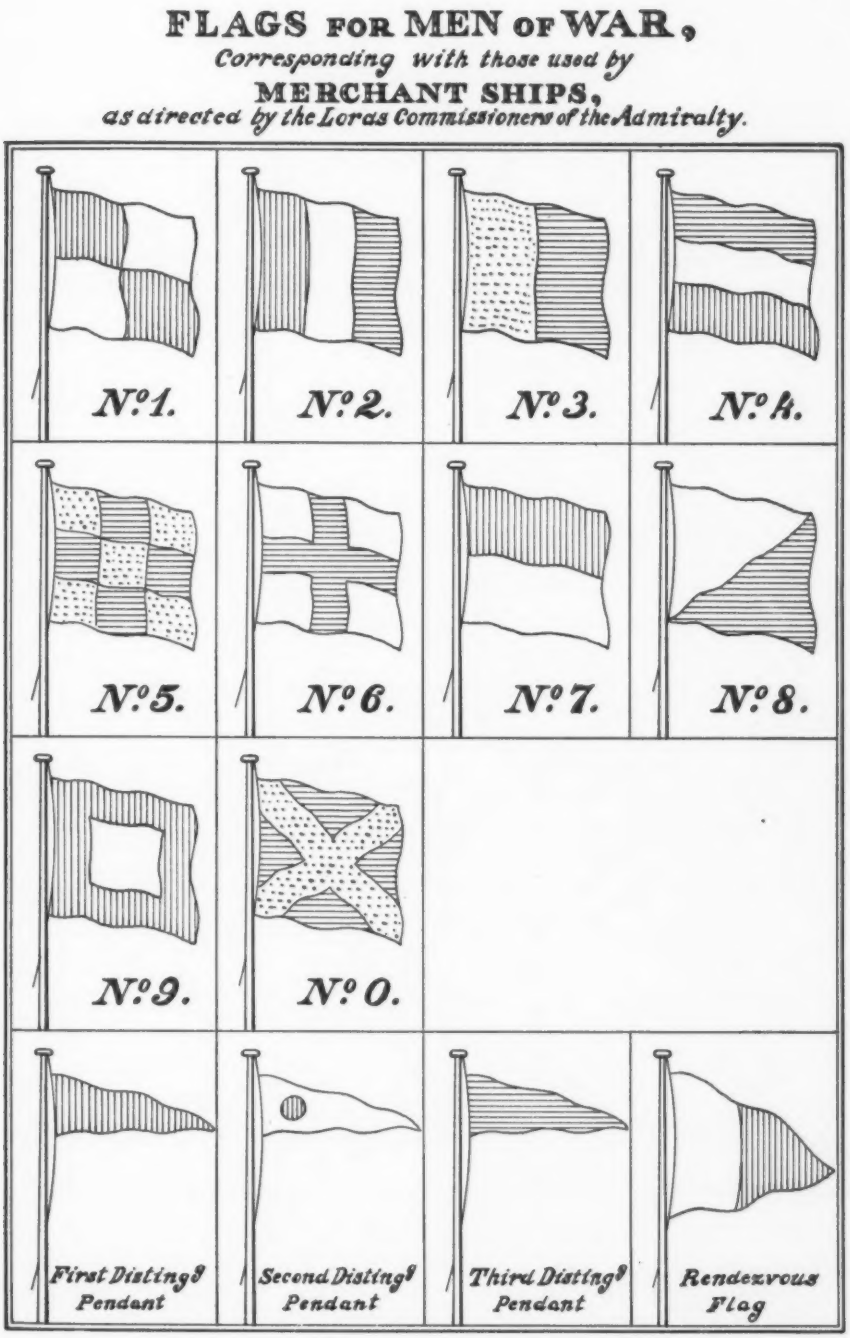


Fig. 2. Marryat's Admiralty equivalents

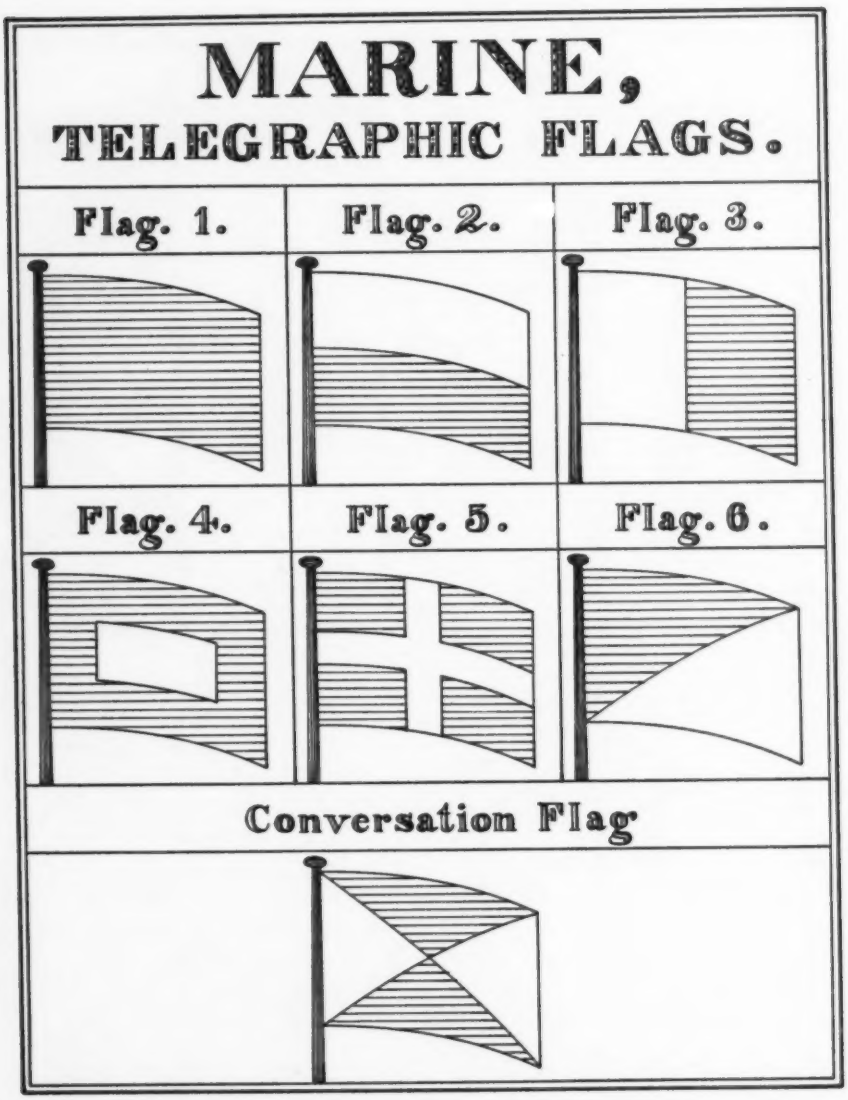
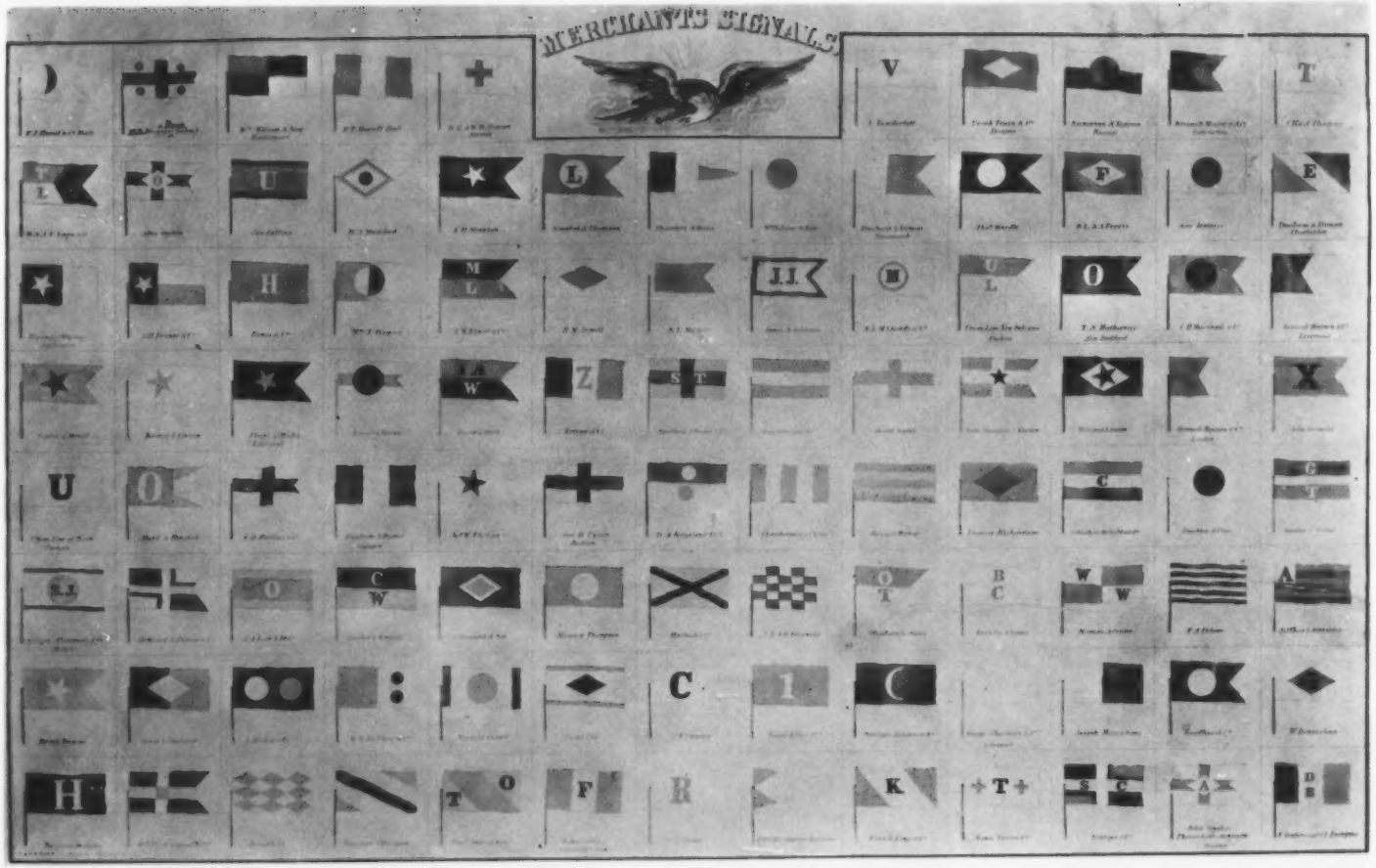


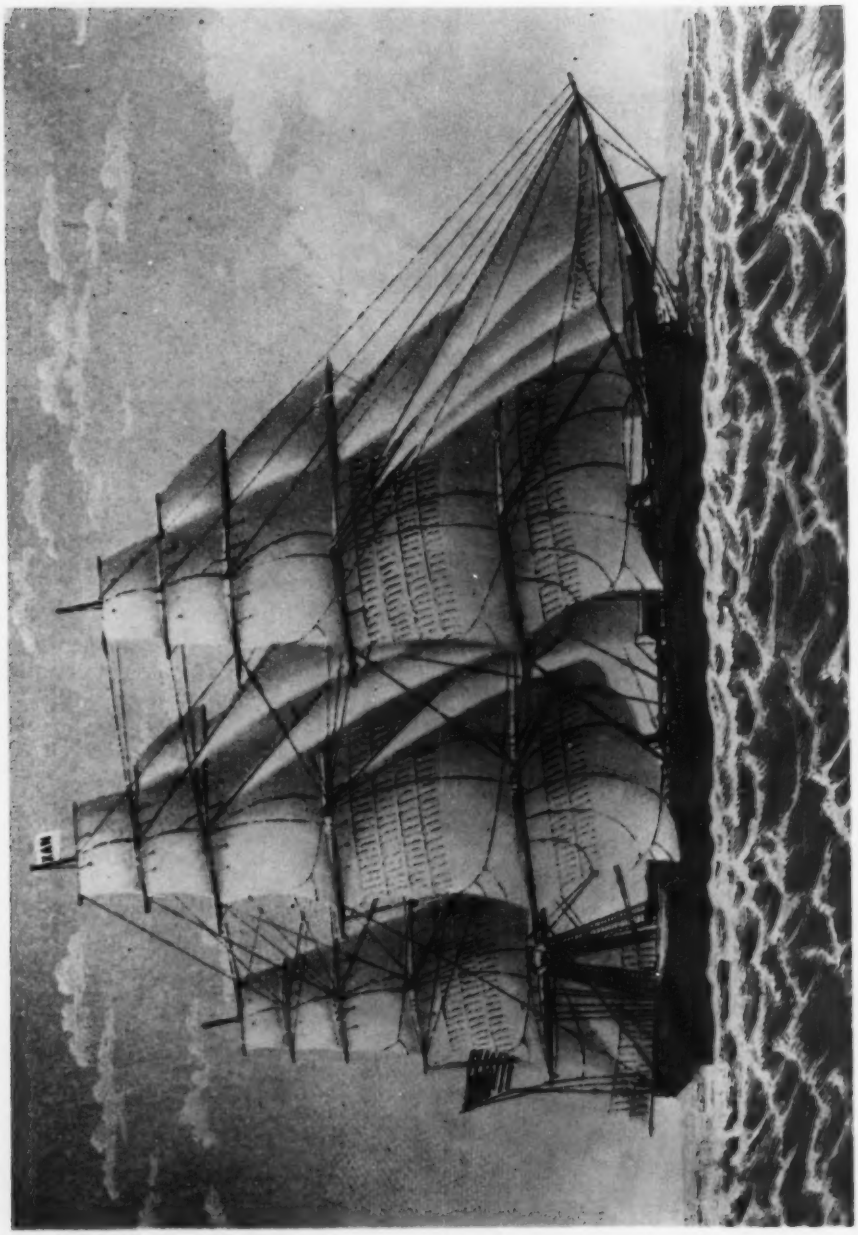
Fig. 3. Elford's Marine Telegraph flags



Merchants Private Signals, circa 1833

Reproduced by courtesy of the Peabody Museum of Salem

PLATE 27



Rogers' Private Signal on the ship *Flying Cloud*

71 indicated the *Rebecca Sims*. A Union Jack or a yacht ensign in place of the distinguishing pendant signified a British man-of-war or a British yacht. The whole system was direct and simple, the only complicating feature being that the various nations, having codes of their own, would not supply their naval vessels with Marryat's flags. Hence it was necessary to adopt the naval code flags to Marryat's book when a man-of-war signaled a merchant vessel. As an example see Figure 2 for the flags used by British naval vessels. The Admiralty equivalents were changed several times but since it is not likely the student will be confronted with these flags very frequently the variants are not included here. Care should be exercised also with Marryat's numbers in portraits dating about 1840-1845 because the identification numbers were revised in the seventh edition.

For all practical purposes Marryat's Code was superceded about 1860 by another, but it continued to be used until as late as 1890.

The second important system was invented by an American, James M. Elford. Like Marryat, he too was a practical navigator. For about twenty years he had been a shipmaster. Then he swallowed the anchor, settled in Charleston, South Carolina, and began to teach navigation. According to the title-page of his signal book and to one of its advertising pages, Elford was, if not the author, then at least the copyright owner and publisher of several works on navigation. In 1823 he issued the first edition of the *Marine Telegraph, or Universal Signal Book*.[4] Printed with it were testimonials from American and British shipmasters, a prominent member of Congress, marine societies, chambers of commerce, and marine insurance companies. All agreed it was a most excellent system and urged its adoption. Elford in his introduction acknowledged he was familiar with the various systems then in use and gave his reasons for proposing another: the others were too expensive or too complicated; therefore 'the Masters of Ships who have attempted to use them have soon become tired of the complexity attending them and discouraged by observing how few will consent to adopt them.'[5]

Six flags, all blue and white ('the best contrast to be seen at sea' wrote Elford), and a 'Conversation flag' composed his system. See Figure 3.

[4] [James M. Elford], *J. M. Elford's Marine Telegraph; or, Universal Signal Book . . .* (Charleston, S. C., 1823).

[5] In 1818 Elford had published an American edition of N. Squire's *Universal Signal Book . . . with Improvements Adapted to the Vessels of the United States of America*. The principal improvement (and apparently it was an afterthought because it is printed on a separate sheet pasted inside the front cover) was a means of identifying a vessel. It was exceedingly cumbersome since it consisted of spelling the entire name letter by letter. As each letter was composed of a combination of one or more of an ensign, a jack, a white flag, and a black ball, a whole name seldom if ever could appear in a picture.

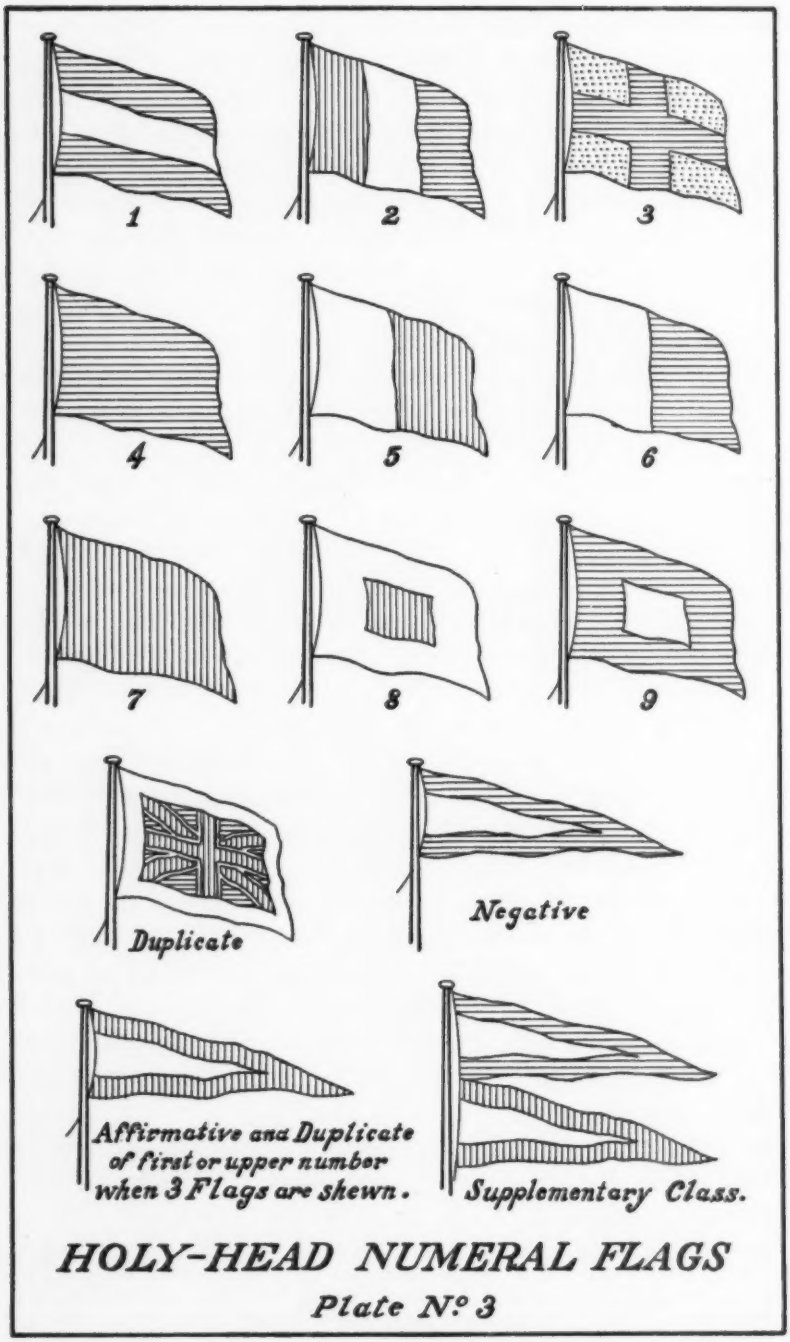


Fig. 4. Holyhead Numeral flags

Each flag had a number. To identify vessels, he devised 'Designating Signals' which expressed the name and home port. These were one or two groups of two flags each. At first 2808 numbers were set aside for the purpose, divided between the 'Atlantic States of America—in proportion to their shipping interest.' A 'Regular register will be kept by the Author in Charleston, where all applications for a Designating Signal must be made, to which immediate attention will be paid and a list of all vessels that have taken signals, will be furnished the applicants gratis, provided those at a distance send their letters free of Postage.'

To the Carolinas were assigned 416 numbers: from 12 to 61; from 12-12 to 12-61; from 13-12 to 12-61; and from 14-12 to 14-61. Virginia received 104 numbers: from 15-12 to 15-61; and so on. Considering that Elford had but six flags (two sets were necessary, thereby doing away with 'repeaters') there are only 26 actual numbers between 12 and 61. Therefor it was necessary to make one signal do for each of the four principal rigs. Thus the ship *Belvidera* of Baltimore and the schooner *Chase* of Baltimore both used '16-21,' and had a brig and a sloop out of that port applied for a designating signal each of them would have had '16-12' assigned.

By 1832 when the second edition was published, the original designating system was found to be too small.[6] Agents had been appointed in Boston, Philadelphia, Baltimore, and Norfolk. Apparently they had been busy selling books, for the signals were expanded to 3680 'capable of being increased to upwards of 20,000.' Even so, 'In consequence of several States having already exhausted all their appropriate numbers, it is intended to divide the Union into two sections.' One consisted of all the states south of New York to which were assigned numbers 1-2 to 24-66 with an identical number being given to a ship, a brig, and a schooner. The other division included all states north of Pennsylvania, and, because of some geographical aberation, Georgia and 'New Orleans.' To this group were given numbers 25-12 to 66-55. As an example, '46-64' was the ship *Olympia,* the brig *Origon,* and the schooner *Magnolia,* each of Boston. No method of differentiating vessels of the same name hailing from the same port was created however. Thus two ships named *Mentor* both of Philadelphia are designated as '23-26' and '23-66': to whom which *Mentor* belonged we cannot tell.

Before the new edition was off the press Elford died, and his Boston agent, John R. Parker, took the book over. The ink was hardly dry when

[6] [James M. Elford], *J. M. Elford's Marine Telegraph; or, Universal Signal Book. Second Edition* (Boston, 1832).

for some reason Parker issued the *American Signal Book, or The United States Telegraph Vocabulary, Being an Appendix to Elford's Marine Telegraph Signal Book.*[7] Parker retained the old system of designating signals but in an effort to extend the book to English users he added the 'Holyhead Numerals.' These formed a method of ship identification used by the telegraphs along the British coast. The flags are given in Figure 4. Note that each of these are rectangular. Each vessel was given a number and corresponding flags were to be hoisted and 'to be Kept Flying along the whole Coast.' The list of vessels with their numbers is given in this edition. They are chiefly British vessels but many American-owned craft are included. For example the *Belvidera* in this system becomes number 156. Elford's system of designating signals also is given unchanged save for additions to the list of vessels using it. In 1836 Parker got out a second edition of his book, the same in almost every respect as the 1832 issue, except that the Holyhead system had been changed somewhat: various long pendants are used for 1000, 1100, 1200, etc.[8] This was simply to keep the number of flags in a hoist as low as possible. To the pendant were added the flags representing the numbers from 1 to 99 inclusive.

The same year the Dock Office at Liverpool controlling the Holyhead Telegraph announced that after 1839 its own numeral system would be superceded by Marryat's signals. This forced Parker to bring out another edition in which the Holyhead numerals were omitted and Marryat's added.[9] Elford's text was still retained with the list of vessels using it further extended but now without Elford's name connected with it. When Marryat's 1841 edition appeared Parker again issued his book, calling it the 'Second Edition.'[10] Aside from changes in the Marryat numbers the book is the same. As Elford's numbers were again enlarged that system seems still to have been vigourous; in fact, addenda sheets dating to June 1843 have been found pasted in one copy.

After the 1841 edition was published, Parker's business was acquired by Messrs. Hudson & Smith, who in 1845 issued the *Signal Book for Boston Harbor.*[11] Parker had steadily increased the scope of his books; not so

[7] John R. Parker, *American Signal Book, or, The United States Telegraph Vocabulary, Being an Appendix to Elford's Marine Telegraph Signal Book* (Boston, 1832). The copy in the Office of Naval Records and Library bears the above title with the first four words printed on a slip of paper pasted above the remainder of the title. A copy in the Boston Public Library, otherwise identical, is without the slip.

[8] John R. Parker, *The New Semaphoric Signal Book* (Boston, 1836). On page 117 are the Holyhead Numerals.

[9] Ibid. On page 117 are Marryat's signal flags.

[10] John R. Parker, *The New Semaphoric Signal Book . . . Embracing Marryat's Telegraphic Signal Numbers. Second Edition* (Boston, 1841).

[11] Hudson & Smith, *Signal Book for Boston Harbor* (Boston, 1845).

Hudson and Smith. They reduced theirs to only two parts: the signals to be used in Boston Bay between the Outer (Nantasket) Station and the Telegraph Station (City Hall, State Street); and Elford's old designating number system. This used the six original flags. In 1848 the numbers were given a complete revision and all the vessels lost since 1823 when the list was compiled were dropped. At the same time the rig classification was enlarged to ship, bark, brig, schooner, and steamer, each using the same number.

One complicating feature in the use of Elford's flags is that they were adopted by the Marine Observatory at New Bedford for reporting all the vessels of that city, Fairhaven, Dartmouth, Mattapoisett, Sippican, and Wareham. A numbering system for these craft was set up apparently quite independent of the Elford identification. In the case of whale ships therefore, reference to the *New-Bedford and Fairhaven Signal Book* is necessary.[12]

One of the great difficulties with all the signals which had appeared up to the mid-nineteenth century was the confusion caused when due to calms or light breezes the flags were not extended and therefore unreadable. Henry J. Rogers of Baltimore, an associate of S. F. B. Morse in developing the electric telegraph, recognized this fault and after several experiments designed a set of flags to remedy it.[13] This was published in 1854 with several subsequent editions.[14] Taking no chance of having his designs stolen, he not only copyrighted the book, but also patented the system in the United States, Great Britain, and France. Rogers succeeded in selling his plan to the United States Navy and for many years his flags were standard equipment on all its vessels. He did not, however, persuade the European nations to adopt it. Of course it was necessary for him to meet competition with Marryat and Parker, hence he devised a method of vessel identification. It was dual in its nature. One means was little more than a regulated system of private signals, one for each vessel with the whole published in an official list. Rogers got each custom district to furnish him with a complete list of vessels registered therein and to each craft over twenty tons he assigned a signal. This at first consisted of a

[12] Augustus Taber, *New-Bedford and Fairhaven Signal Book* (New Bedford, 1845).

[13] Henry J. Rogers, *The Telegraph Dictionary and Seaman's Signal Book . . .* (Baltimore, [1845]).
Henry J. Rogers, *Roger's and Black's American Semaphoric Signal Book* (Baltimore, [1847]).
Henry J. Rogers, *Roger's and Black's Marine Roll, or List of the Names of the Permanently Registered and Enrolled Vessels above Twenty Tons, Comprising the Mercantile Marine of the United States; Furnished for the American Semaphoric Signal Book* (Baltimore, [1847]).

[14] Henry J. Rogers, *The American Code of Signals For the Use of Vessels Employed in The Merchant Service* (New York, 1854).
Henry J. Rogers, *Rogers' American Code of Marine Signals, . . . Second Edition* (Baltimore, 1856). Second title-page. *Rogers' Marine Telegraphic List of Merchant Vessels of 150 Tons and Upwards . . .* (New York, 1856).

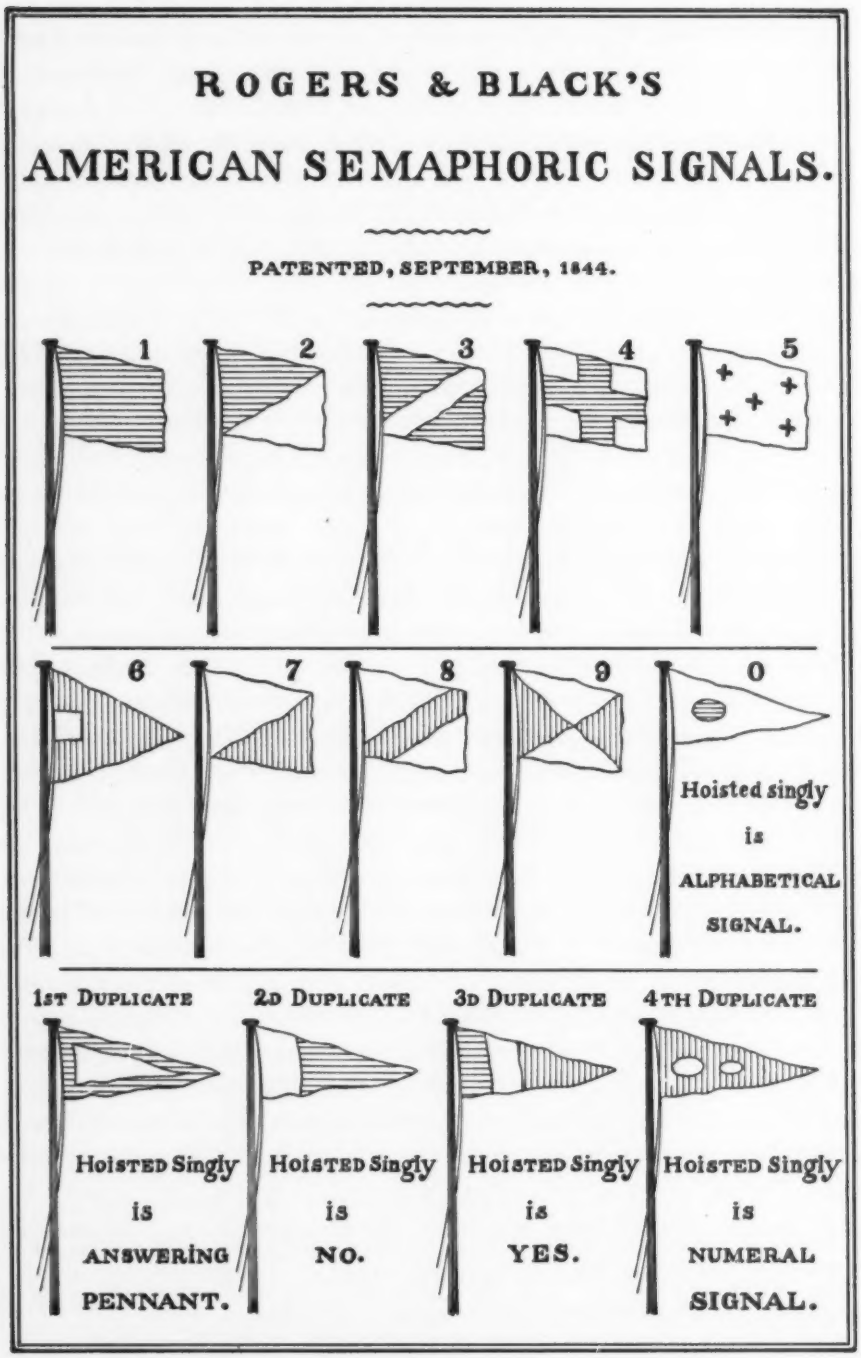


Fig. 5. Rogers' American Semaphoric Signals

white flag with black letters painted on it. If the master so elected the letters might also be painted on a sail. Thus NVM stood for the ship *Monongahela* of Philadelphia.

The second means was a number made up with the flags of the ordinary Rogers signal flags (Fig. 5). In this the *Monongahela* became 30354. Based on the earlier experiments Rogers changed the design of his flags and simplified his identification system in 1854. The numeral system was dropped entirely. The flags as given in Figure 5 are from the second edition; those in the first edition have two variants: number 5 is a square flag divided diagonally from lower hoist to upper fly, the upper half red, the lower blue; number 6 is a solid red pendant; and number 8 is a square flag divided into three diagonal divisions from lower hoist to upper fly. Blue on top, red center, and white on the foot.

The old system of painted letters was retained but all vessels owned in the custom districts from Eastport, Maine, south through ship-rigged vessels in the New York district used a white flag with black letters: New York district bark-rigged vessels down the Atlantic Coast, around the Gulf, and on the Lakes used white letters on a red flag; and on the Pacific Coast white letters on a blue flag. See Plate 28.

The last important code of maritime signals, the only one to survive to the present day, was *The Commercial Code of Signals for the Use of All Nations.*[15] This was not the work of one man as all the others had been, but the result of many practical minds all working together on a single problem. In 1855 the British Board of Trade, realizing the inadequacy of all the existing and previously used codes, appointed a committee composed of three of its members, a representative from the Admiralty, one from Trinity House, two from Lloyds, and one each representing the General Shipowners Society and the Liverpool Shipowners Association. They examined every known code, found all at fault in at least one respect, and therefore devised a new one. That this was not perfect is attested by the general revisions (1901 and 1933) which have been found necessary. But it was far superior to any system used until its invention. Every phase not excluding the moral was considered with great care.[16] For reasons of economy most of Marryat's flags were retained even though it was acknowledged certain other colour combinations or shapes might be preferable.

[15] John T. Forster, compiler, *The Commercial Code of Signals, For The Use Of All Nations . . .* (London, 1857).

[16] In naming the flags, all vowels were omitted because with them every vulgar and obscene word of four or less letters in every language was certain to be included as a signal hoist.

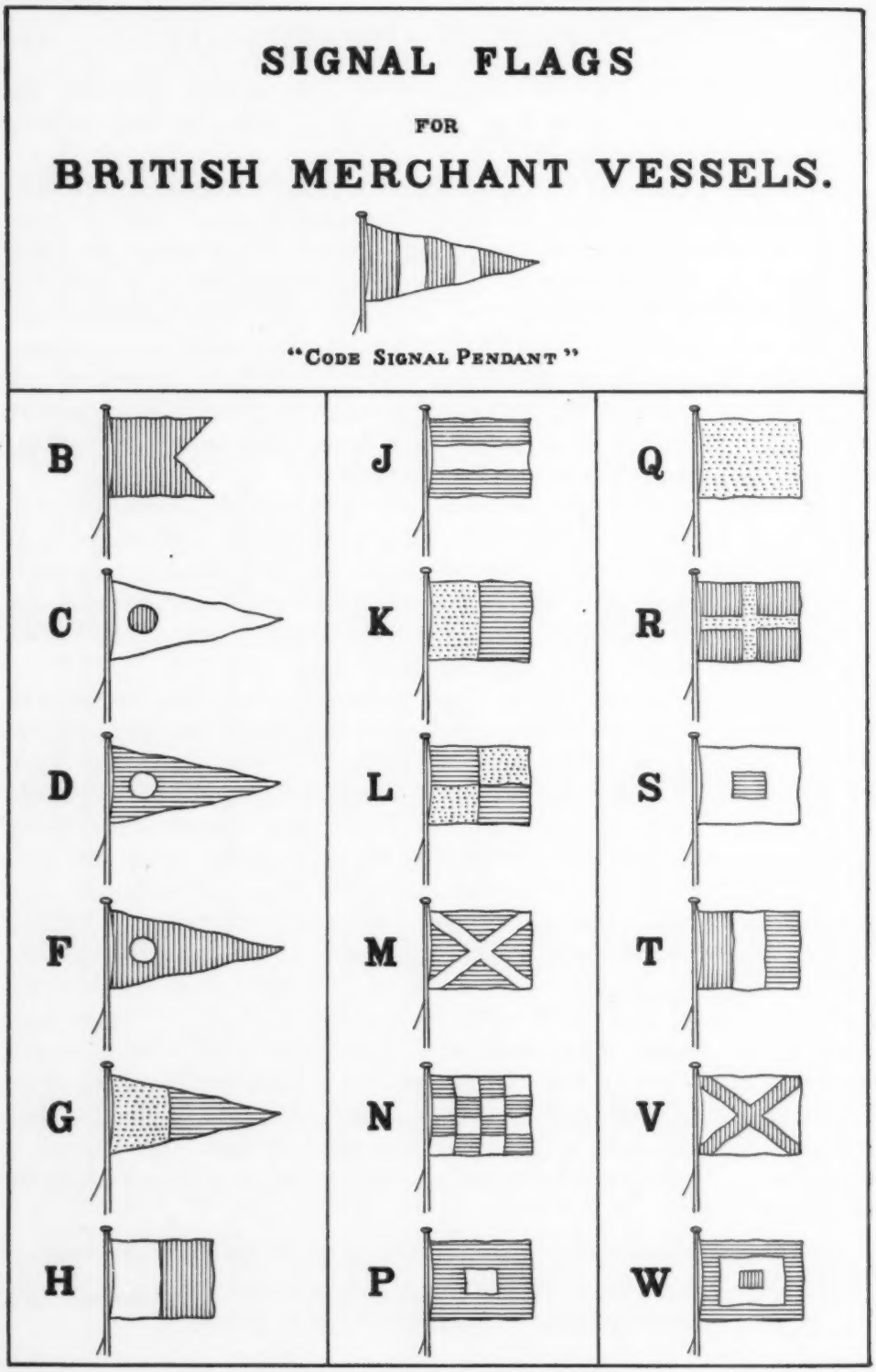


Fig. 6. Commercial Code flags, 1857

Originally there were eighteen flags plus an affirmative, a negative, and a 'Code pendant.' See Figure 6. With a square flag always first about 50,000 vessels could be furnished with an individual signal. It was composed of four flags. These were assigned automatically in the British Isles by the Registrar General of Seamen and Shipping. The masters and owners of foreign vessels were invited to send their requests for registration to him. Each year the letters were published in a volume entitled *The Mercantile Navy List*. Supplements printed quarterly were the means of keeping the *List* up to date for a while, but soon the *Shipping Gazette* began to publish additions weekly. In the United States Henry Rogers in 1860 began to publish an American edition which included the vessels of all nations: the Commercial Code had, in fact, become the International Code even though it did not take that name until 1870. When the United States Government began in 1868 to publish the *List of Merchant Vessels of the United States* the signal letters were included with the listing of the vessel.

The Code had its bad feature, though this was not the fault of the committee: every navy, even that of Britain insisted on using its own flags. That meant a multiplicity of flags with the same significance. There were nine when the 1868 edition was printed; see Figure 7 for those used by the United States Navy. These were published in various editions of the code book up until about 1881. Then the uniform system was established with the original English flags in use by all the European nations. The United States continued the dual system until 1895.

The method of using the International Code to identify a vessel was simple. As long as there was a multiplicity of codes in use the 'Code Pendant' was hoisted to show that Commercial or International, was being signalized. Or if flags other than those of the original merchant series were hoisted, the national ensign was raised over the code pendant. These were shown at the gaff. Then on a mast-head (whichever could be seen best) the four flags identifying the vessel were hoisted. The ship receiving the signal looked up the proper flags and the corresponding letters in the *List* and instantly knew the full register of the vessel making the signal.

There were of course other codes in use at various periods: Reynold's Code (French, 1855) using ten numeral flags with an identification system like that of the Holyhead Telegraph; Rohde's (Danish, 1835); American Lloyds (1875); and many others. It is quite possible the student of ship portraiture may find himself confronted with the symbols used by one of these lesser systems but the chances are that with a knowledge of

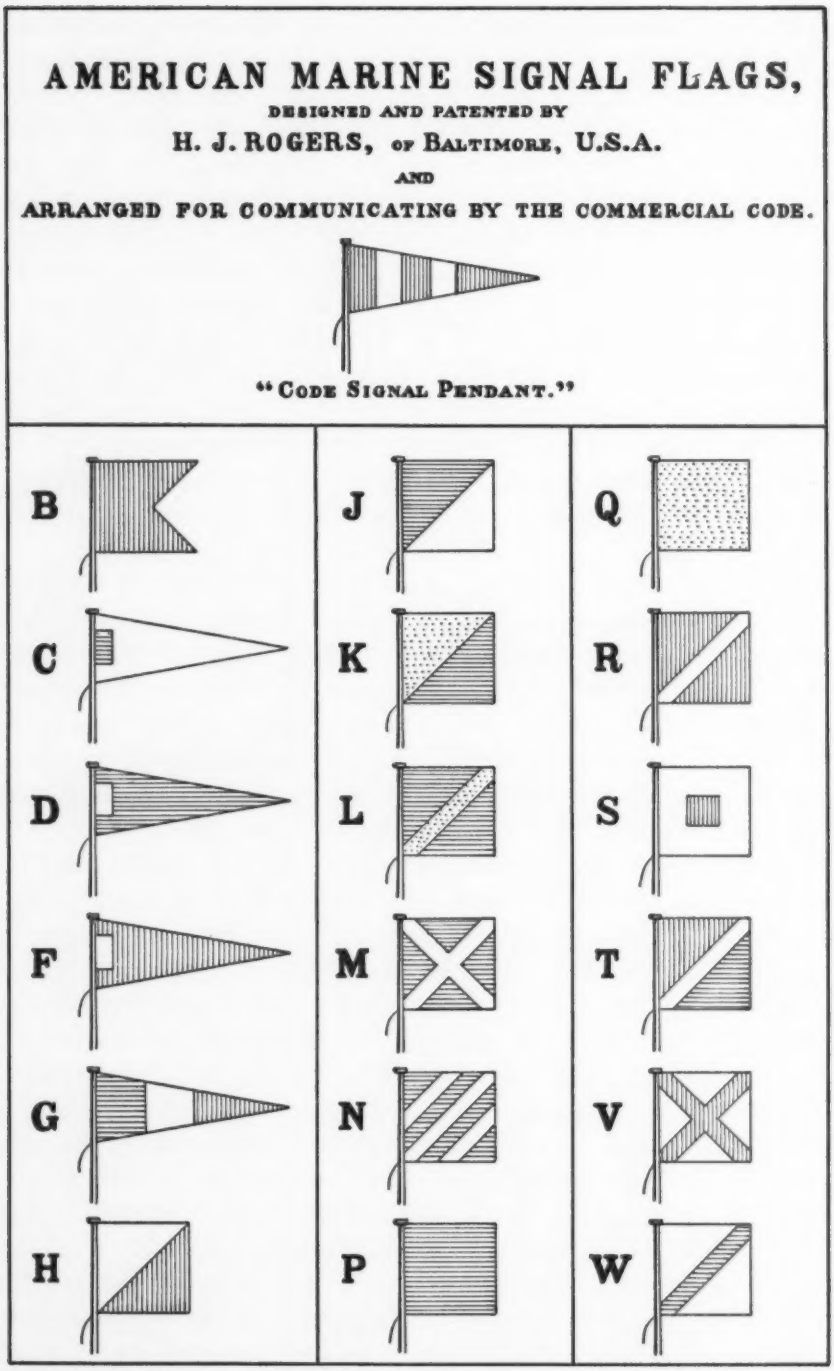


Fig. 7. Commerical Code (United States equivalents)

Elford, Marryat, Rogers, and International, he will be able to identify the great majority of pictures which come his way.[17]

Check-list of Signal Book Locations

Marryat. 1818, PM; 1826, NYPL; 1844, ONR; 1851, LC, ONR, PM; 1854, LC, PM; 1858, LC; 1861, ONR, PM; 1869, ONR, PM.

Elford. 1818, ONR, PM; 1823, MHA, ONR; 1832, MHA, ONR.

Parker. 1832, ONR, PM; 1836, ONR, PM; second 1836, ONR; 1841, NYPL, ONR.

Hudson & Smith. 1841, NYPL; 1845, PM; 1848, PM; 1853, PM.

Taber. 1837, NBFL; 1845, LC, NBFL; 1848, NBFL; 1853, NBFL; 1855, NBFL.

Rogers. 1845, LC; 1847, LC, ONR; 1854, ONR; 1856, LC, ONR.

Commercial. 1857, ONR; 1859, LC; 1861, LC, PM; 1864, LC; 1868, ONR.

International. All, LC.

LC – Library of Congress. MHA – Marine Historical Association.

NBFL – New Bedford Free Public Library. NYPL – New York Public Library.

ONR – Office of Naval Records and Library. PM – Peabody Museum.

[17] The best collections of signal books are to be found in the Library of Congress, the Office of Naval Records and Library, and the Peabody Museum of Salem. The holdings of these and a few other institutions are listed below. The author will be happy to hear from anyone who knows of any rare signal books or anyone faced with an identification problem.

The Journal of Voyages of the Brig Venus *and the Schooner* Louisiana *in 1806*

BY GEORGE BARRELL
EDITED BY E. LEE DORSETT

SUNDAY 13 *July* 1806. At about 9 AM we weighed anchor with the wind ENE and stood out the harbour of Boston, at 12mdn, came to anchor in Nantasket Roads. My brother with another gentleman accompanied us, who after taking some refreshments, returned to Boston on the pilot boat. To a person who had never been at sea, *Sunday* could hardly be distinguished from any other day, for after taking in our canvass and coming to anchor we cut some of our spare rigging to lash the deck load, after which some of the crew sung, others danced and found a variety of amusements to pass off their time. I at this time remained a silent spectator, as the motion of the vessel, which at this time was rolling, was excessively disagreeable. On asking why the day was so spent, their reply was that there was no *Sunday in five fathoms of water*. There were several vessels in the roads waiting a fair wind which at this time we did not seem to be blessed with. After tea the mate and myself with two seamen, took the yawl and rowed to Nantasket to get a few articles which we had neglected purchasing previous to our leaving Boston. On arriving the mate endeavor'd to purchase some butter &c but was not able, it being Sunday night.

Monday 14. Light breeze from the westward. At 5 A.M. weighed, and stood for the light house, which we passed in about an hour. at 11 the light bore W, distance about 6 leagues; at sun set got sight of Cape Cod, distance about 3 leagues, bearing SE. Several coasters and fishing boats in sight; cloudy toward night.

Tuesday 15. Pleasant with moderate breezes. At 8 AM Calm. Sent on board a sloop and purchased some fish. At 2 P.M. fine breeze from westward. At 3 spoke brig *Hannah,* Joseph Swasey, master, 50 days from Gottenberg, bound to Boston. Continued pleasant.

Wednesday 16. Pleasant with moderate breeze from westward. Caught two mackerel by towing the line over the stern. At night a new sight presented itself, an immense body of water, bounded on every side by the sky,

with not the least remains of the land to be seen. Cloudy. Saw a very large shark, who disappeared instantly. . . .

Saturday 19. Cloudy, light breezes from NE. At night the wind fav'd us and we contin'd our course, about sun set caught a dolphin which differing so much from the idea I had always formed of them, and supposing that some of my friends' ideas respecting the fish were as erroneous as my own, I took a sketch, as well as the motion of the vessel would allow. They are very ellegant from 2 to 4 feet in length; they dart out of the water as they pursue the flying fish, on whom Nature hath bestowed wings as the only means of escaping this ravenous enemy. It is seldom, that they will seize a bait & when they do 'tis extremely difficult to draw them in, as they dart from 8 to 10 feet out of the water & by that means generally break the line.

Tuesday 29. Pleasant light breezes from SW contin'd a few hours, after which it became hazy, at about ½ past 11 PM made the Island of Corvo, the westernmost of the Azores or Western Islands, which bore S three leagues dis. It being very cloudy and hazy did not perceive it sooner. It had the appearance of a heavy bank of clouds but the moon shedding a few rays, enabled me to take a sketch of the two ends, the center and the summit being entirely enveloped in clouds. 'It is the smallest of the Azores and takes its name from the Abundance of *Crows* that are found upon it, the Inhabitants are about 600 who raise wheat &c.'

Wednesday 30. Cloudy and light breezes from SW at ½ past M lost sight of Corvo, which was a great disappointment to me as I entended to take a more correct Sketch. At day break contin'd hazy with light breezes.

Thursday 31. Hazy with light breezes from SW. At ½ before 12 mdn, made the island of Graciosa, which bore E dis. about seven leagues, at 2 bore SW. dis about four leagues and at about ½ past 3 it bore WSW about 3 leagues. I took a sketch of the two last bearings. The island of St. George appeared to the southward of Graciosa, at about 10 leagues distance; being hazy could not get a correct view. 'Graciosa is about 10 miles long and 8 broad, takes its name from its beauty & fertility in corn, fruit, pasture and cattle. Supplying the adjacent islands with part of its produce, it is well peopled, has villages, and ports on the coast. The chief place is La Plata.' At 5 P.M. lost sight of St. George and at 7 of Graciosa. Continued hazy 'till night when it cleared.

Friday 1 *August* 1806. Clear, Cont'd 'till 2 A.M. when it became cloudy with light breezes from SW. At day break made the island of Tercira about 3 leagues dis. almost enveloped in clouds. I took a sketch of it but the outlines of the land was all that could be discerned. It is one of the

Azores and 'is the most important on account of its harbour, which is spacious, and has good anchorage but is exposed to the SE winds. It is generally visited by the homeward bound Portuguese fleets from Brazil, Africa & the E. Indies. Its capital is Angra, contains a cathedral and fine churches and is the residence of the governor of these islands, as well as the bishop.' It is very fertile, contains 20,000 Inhabitants, its length (according to our calculation) is a deg of Longitude or 45 Eng. miles. At about 4 P.M. it became calm at which time we discovered a sail far to the northward which appeared to be standing to the southward, but she soon altered her course, and bore down upon us. Upon viewing her with the glass, we perceived she was a privateer, which alarm'd us a little as privateers are generally seen near those islands, and on the coast of Europe, which rob vessels of provisions, cloths, &c. and have been known to cut away the rigging. At 8 we lost sight of, and were in hopes we had escaped her, but about ½ past 11 we discovered her within gun shot, on our larboard side standing off and on, fearing, I imagine, that we were some armed vessel. Some of the crew had their cloths in the main top; some in empty barrels and various places, fearing they were some French, or Spanish pickeroon, who trouble themselves very little about honor. Saw several blackfish playing around the vessel, whose spouting represents the whale. They are from 25 to 30 feet in length and are a species of whale called the Finback, weight 4 tons and upwards.

Saturday 2. Pleasant nearly calm. Smoth Sea. At 4 A.M. the above mentioned privateer bore down upon us & hailed, which calmed our agitated minds a little. She proved to be a Guernsey privateer called the *Mary* mounting 14 guns and 40 men, all Irish. When we have too, the mate came on board, after going below he accompanied Captain B. on board the privateer, where he was treated very politely, and permitted to proceed, being detained about 15 minutes. The privateer then proceeded to the westward in pursuit of French and Spanish vessels. At 9 o'clock a slight shower, after which a light breeze sprang up from ENE. Cloudy latter part afternoon. At 12 midnight made the island of St. Michaels, but owing to its being very hazy and the great distance could hardly be distinguish'd from the clouds which lay over it. 'It's the largest of the Azores being near 100 miles in circumference and containing 50,000 Inhabitants was twice invaded and plundered by the English in the reign of Queen Eilzabeth.' Squally at night. . . .

Wednesday 6. Pleasant light breezes E. Saw several dolphins; hove the grains at one but to our great disappointment missed him. At 12 mdn

wind haul'd to NE, which enabled us to lay our course with fresh breezes. . . .

On examining our water casks discov'd that one of the largest had leaked entirely out and on unloading at Gibraltar the rats had done the mischief. Squally all night.

Saturday 9. Rainy and cloudy, moderate breezes from ENE. Came to an allowance of three pints of water (not of the sweetest quality) a day per man. Contin'd cloudy. . . .

Monday 11. Pleasant, wind SE. At 12 noon dis'd sail standing about NE — very hot and calm. Finding that we had not steerage way upon the vessel, took the opportunity of bathing, altho' a little in danger of being devoured by sharks. At 6 P.M. the sail altered her course and endeavored to bear down for us; we back'd our main top sail and hoisted our ensign union down, but it was so dead a calm, that they made but little progress, and at dark we lost sight of them. . . .

Thursday 14. Pleasant, fresh breezes from NE. In afternoon saw a turtle, lowered our yawl, but could not catch it, as the sea running very high. . . .

Saturday 16. . . . At 7 A.M. saw large flocks of birds which leds us to conclude that we were near the coast of Africa. Cont'd pleasant. . . .

Monday 18. . . . In the afternoon bent our cables, and got out the anchors on the bow. Continued pleasant.

Tuesday 19. Pleasant, light breezes from westward. Saw a large number of birds. In the afternoon wind came round to the NNW, from whence we had a fresh breeze. At about ½ past 4 P.M. heard the report of a number cannon to windward. Supposed to be some vessels engaged. At 12 midnight being calm, hove lead & got soundings in 60 fathoms, good bottom.

Wednesday 20. Pleasant light breezes from westward. At 1 A.M. we discovered a vessel bearing down upon us, who hailed us; we mentioned the brig and captain's name, where from, where bound, how long out, &c. but they did not think proper to return the compliment, which lead us to suppose she was a man-of-war.

At daybreak discovered the land, which proved to be Cape Trafalgar. It being quite hazy, did not have an opportunity of taking a Sketch 'till we had passed it several miles, but the place being celebrated from the victory of the English over the combined fleets of France and Spain and the death of Lord Nelson, that I made a sketch. On the African shore we discovered Cape Spartel of which I took a sketch. The coast from Trafalgar up the Straights exhibited one of the most picturesque views imag-

inable. Immense heavy clouds hanging over and lying along the center of the most beautiful mountains I ever beheld, whose summits were covered with green throughout the year — with the sun just breaking through and evaporating the dew and mist — formed a sight truly novel and sublime and which lay far beyond the power of the painter or poet to represent — It was at this time a dead calm, but the current (which is very strong and which always runs into the Mediterranian) was setting us up about three knots, when we discovered a number of latein gun boats standing after us from the Spanish shore, who began pelting us with small shot, which made but small progress toward us, generally falling one-half way between the boats and ourselves, and it was not our intention to heave too 'till we really conceived ourselves in danger. An English man-of-war, which lay off Africa, fired several shot in order to intimidate them, but it was to no purpose, as she was at a great distance and becalmed. By this time the boats had got very near, and upon hearing one or two of their shot whistle by our heads, the captain thought best to heave too. We were then boarded by three of them. The first acted like men of honor, rarely found in Spaniards, for they neither stole nor begged but only examined our papers, while the other two boats contained a set of lousy, rascally thieves, for they begged, and what we did not give them, they stole, and, as a final settlement, wished us to pay for the shot they had fired at us. We informed them we would had they fired them on board. These boats are from twenty-five to thirty feet in length are manned by thirty to forty men, and have generally one gun on the bow. They sail exceedingly fast, and in a calm they can sweep from three to five knots. Their crews in general are composed of the most rascally set of Spaniards, French, Irish, &c. that can be met with on earth and are extremely filthy. The boats have from one to three sails. At 11 A.M. Serifa bore N. It is a strong town beautifully situated at the foot of a high mountain, built entirely of stone and nearly surrounded by a strong fort. It also has a town situated to the W of it. About this time we perceived the rock of Gibraltar, about the Spanish coast, also Ape's Hill on the African shore, which, with Gibraltar, are called the pillars of Hercules. At 12 meridian a breeze sprung up and we were within a few minutes sail of Gibraltar (the distance from Trafalgar being but a few miles) when one of the rascally gun boats, run out from a point on the Spanish coast and bore down on us. We crowded sail and should have arrived but were obliged to haul up on our course and heave too, when we heard the report of her metal and the whistling of the ball as it passed over our rigging. On coming up they ordered Captain B. on board the lugger and sent their captain with two men on board the

brig, who began to ransack everything that came in their way, broke open the scuttle and would have taken off the hatches but unfortunately for them, the long boat was in the way. They left us and informed Captain B. that they would send a pilot to take him to Algeciras. The Captain remonstrated, but in vain. Fortunately he hit upon a new expedient, he remarked that he had always thought the Spaniards men of honor, but was disappointed, owing to the treatment he had from them, particularly, as he was bound to a Spanish port. This seem'd to blow up the small spark of honor which still remained in them & they said we might go, provided that we would give them some beef, bread, fish etc., which we accordingly did and arrived at Gibraltar in a few moments. There are very few vessels unless armed that escape these rascals, especial neutrals, for when they are bound out with English property, they are obliged to put into Gibraltar and wait for a levant wind and to run through the gut, which is generally done a night. Captain B. with two seamen in the yawl rowed to the ragged Staff & ordered the mate to stand off and on in the brig, not being certain whether he should dispose of his cargo here or at Malaga. On coming on board he informed us there was five days quarantine to be performed in consequence of our being boarded. We endeavored to beat out but the wind and the current were against us. We made several tacks but lost on each and finding it fruitless we came to anchor with our small bower in about 9 fathoms of water. We here found a great number of Americans, Swedes and Danes, also the frigate *Constitution*. There was a report of peace between France and England, which had entirely stagulated business, but upon enquiring found the market better for every article we had on board (staves excepted) than at any other port in the Mediterranean. Accordingly we moor'd our brig, which is here the custom and waited with patience for our quarantine to expire.

On *Saturday* 23d., two Swedish men of war with about 70 or 80 merchantmen got under way and left the harbour clear to us Yankees (a name that every American feels proud of owning, particularly in foreign countries). At 10 A.M. we obtain'd pratigue and Captain B. went on Shore and was kind enough to obtain a pass for me. They give the master of every vessel a permit which allows him and one of his crew to go on shore but as all of our crew wished this priviledge, I tho't it convenient to have a separate one. In the afternoon we went on shore after showing our passes to the commanding officer. The first thing that drew my attention were the jackasses which are here in great abundance; they are rode by the inhabitants and employed in carrying water to the different parts of the Rock, which they perform better than horses or mules as you often see

them ascending and descending cliffs which are almost perpendicular, with three kegs of water, which is carried to the different guard houses & to the inhabitants who live on the side and summit of the Rock. They are also employed in carrying sand & fruit to different parts of the town. But my attention was soon turned to still stranger objects, viz.; the Jews, who form a principal part of the inhabitants, and it being their Sunday, there was very little business doing. They all carry the same hypocritical countenance, which has led to the remark that they might be known in any part of the world by the same. They shave their heads but allow their beards to grow from 4 to 6 inches (the young Jews however generally shave theirs) they wear a blue or black cap with a jacket of the same colour, which reaches about half down their thighs, with their sleeves short, from the ends of which, hangs their shirt sleeves, their breeches are generally of the same colour and appear like pantaloons cut off at the knees, they wear a red belt like the Spaniards, their legs are bare and they all wear slippers or sandals. The lower class carry their merchandise on their arms throughout the town. They will deduct from 1 to 300 per cent from their asking price, & then get more for the article than it is worth. They are very dirty and in general smell so strong of garlick & onions that it is disagreeable to pass them unless on the windward side. Some of the old Jews carry their heads and necks upon a angle of 45 deg but whether occasion'd by religion or labour, I could not ascertain. They are very strict respecting their religion, as an instance of which I relate the following, which an officer of the garrison informed me was a fact: on a Saturday evening about six weeks previous to our arrival, as one of this sect was about going to bed & sitting by his table, he had the misfortune to have his cap take fire from his candle, which being very greasy, burnt very rapidly. It fell on the table, but he remained a silent spectator 'till it took fire & had got pretty well ahead. He then called a Moorish boy to put it out (his religion not allowing him to do so) but the boy swore he would not be a slave to a Jew — of course he let it burn. During the conversation the house took fire and the garrison was alarmed by the report of several guns fired from two Portuguese men of war, which lay in the harbour. The alarm was given but before they could get it under control there were from 12 to 14 houses and a great quantity of tobacco and other merchandise consumed to a very great amount.

The Bay of Gibraltar is very clear to run in, but very bad anchoring ground, being very rocky. It is bounded N. by St. Roque, S. by the Mediterranean Sea, E. by Gibraltar and on the W. by Algerciras, but the Levant winds, which are here prevelent, render it very unsafe, particularly

in the winter season. When this wind is about to prevail, a heavy cloud gathers round the summit of the Rock & there remains, while the atmosphere is very clear. The wind then bursts around the NE corner of the Rock in squalls (which remain a few minutes & then succeeded by calms) so violent as to cause vessels to drag their anchors, part their cables, and frequently wrecks them on the Spanish shore. This wind remains from one to five days without intermission and are most violent in the autumn & winter, when vessels are obliged to put to sea. When this wind is not prevailing it generally blows from the SW or SE which raises a violent sea, rather more disagreeable than a levantar, for you have the trouble of the ocean, while lying in port. The bastions that protect the town are exceedingly strong about 30 or 35 feet in heighth and 6 in thickness, which are washed by the sea, on which cannon are planted in every direction from 6 to 68 pounds (some brass), also mortars from 2 to 3½ feet in diameter. The number of soldiers I was informed were 7000, but 4000 men were hourly expected from Malta. On returning I was informed by the officer of a English man-of-war, that the squadron had arrived which would make the compliment 10,000. The streets are very narrow & extremely dirty, the houses are all built of stone in the Spanish manner, with courts and gallerys, the front doors being open to man & beast. Some of the buildings which the officers occupy are bomb proof, also the soldiers barracks, being under the surface of the Rock, but in general they are built on the surface. The lower class live in small houses built of very small stones, stuck together with mud & plaster, the roofs are covered with tile, scoloped in such a manner as to lay over each other, which sheds the rain much better than shingles. The chief buildings of this place are a R. C. church, Jewish synagogue, marine hospital & several handsome buildings occupied by the Governor and other officers of distinction. The weather at this season is extremely warm and with the dryness of the Rock, makes it a very disagreeable place of residence. The rainy season setts in about the middle of October and continues untill spring. Snow is seldom seen and when seen, seldom lasts above an hour. There is a mixture of all nations dwelling in Gibraltar, but chiefly Spaniards & Jews. Turks and Grecians transact considerable business here in the commercial line. The Lord's day is taken but little notice of, being appropriated to gaming, dancing and drinking &c. You scarcely pass a dwelling where there is not drinking, gaming or fighting going on, and the Jews work, buy and sell as on other days. The American and English shipping display their ensigns and make it a day of rest, which is the only respect I saw shown while there.

The manner of burying the dead, is altogether different from what I

had ever heard, or seen. They place the coffin on the rock (being rather difficult to dig a grave) and plaster it over with mortar, upon which they stick shall Shells, and generally place a Stone at the head & foot. On Sunday September 7, Captain B., with myself, accompanied by some gentlemen, having obtained a pass, set out upon a visit to the summit of the Rock. The weather was hazy and extremely warm. The first specimen of antiquity we perceived was the ancient castle built by the Moors, entirely in ruins, the lower part is now used as a prison. The interior parts are not to be seen by anyone, the key being lodged at the tower in London. A few years since, it is reported, the Moors offered the English an immense sum for permission to enter the ruins and remain a few hours but were refused, for what reason I could not ascertain. I made a drawing of it while lying in the harbour. The guard here enquired for our permit, upon showing which, one of the soldiers accompanied us to the gallerys, which are immense arches cut through the Rock about 12 feet in height and about the same in breadth; at about every 60 or 70 feet there are cannon mounted, with about 200 rounds of ball & cartridges. The heighth from the lower gallery to the cap of the Rock is from 650 to 700 feet. After leaving the lower gallerys, we entered the upper, which are formed in the same manner as the lower. The passage through is extremely dark, there are a great many powder magazines, also wells in these gallerys, which are only discernable by the Sound as you pass them. St. George's Hall, situated in this gallery is a great piece of workmanship. It is of a circular form, about 25 feet in heighth with a handsome dome in which are mounted 10 or 12 heavy pieces of cannon. Cornwallis' Hall is likewise ellegantly formed resembling St. George's. To enter these halls 'tis necessary to descend a winding stair case from 40 to 50 feet and so extremely dark that 'tis necessary to feel for the step on which you are about to place your foot; you therefore 'walk by faith and not by sight.' The soldier informed me that 'twas very hazardous to discharge these cannon mounted in the gallerys, as large pieces of rock have been known to fall from the roof, owing to the confined report. After discharging these pieces two or three times the air becomes so close and stagnated that the blood will issue from the eyes and nose of the soldier and if continued would in all probability soon put a period to his existance. Wherefore they are 'now for ornament than use.' The balls are brought up by the soldiers; small ones by one man, large 40 to 88 lb. by two, and 'tis considered a days work to bring up one, for which they are paid 6d. The provisions lodged in the interior of the Rock (which we had not an opportunity of seeing) has been reported to be sufficient for three years, but at present they feel in perfect secu-

rity, wherefore they have provided themselves with but one. When the second years stock arrives, they begin to consume the first, for which reason they have always old provisions on hand and when standing three years, is almost unfit for use, particularly flour &c. After leaving the upper galleries we ascended the east end of the mountain by paths cut through the crivaces of the Rock. From this summit you look down a perpendicular precipice fourteen hundred feet into the Mediterranean where you may see men-of-war, privateers and other vessels, so directly under you that a stone may be thrown on board with ease. This end is protected by four forts, at about equal distances from the gallerys, on which very heavy cannon is planted. Like travellers, we marked our names on the pinnacle and pursued our rout through a subterraneous passage to the north side, on our way to the southern pinnacle. We passed Douglas's Cave which is hollowed from the rock, about thirty feet square, for the purpose of a resting place. About the center of the Rock is a tower, on which signals is hoisted, consisting of the standards of all nations, also several black balls, which is something similar to the telegraph, but the use no one is acquainted with save the chief officers of the garrison. From this tower, you have one of the most delightful prospects imaginable, the town and the fortifications lie directly under you and have the appearance of a chart. You also have the harbour and the shipping, men-of-war of 100 guns appear about six inches in length, ships and smaller craft in like proportion, with vessels entering, leaving the harbour and boarded by men-of-war and gun boats in the Straights with firing from the Spanish and English forts, forming a sight truly novel and beautifull. From this you may see Capes Trafalgar and Spartel, towns of Tarifa, Algerceras, St. Roque on the N; Tangier, Ceuta with Apes' hill on the S, and on the E Marbella, Estopona, with the spires of the cathedral at Malaga. In fact your sight is lost on mountains which are eternally covered with snow, altho' the weather was at this time hotter than I had ever experienced. On the southern pinnacle is situated St. Georges Tower, nicknamed O'Harra's folly, the heighth of which I could not ascertain, but believe it to be from 35 to 40 feet. In the winter of 1804 it was struck by lightening and very nearly destroyed. You ascend this tower on the inside by a winding stair case but are prevented from reaching the summit by the roof which has sunk about five or six feet, composed of one stone about eight feet in diameter and 1 ½ or 2 ft. thick, this has the appearance of being supported by a few grains of mortor, which causes spectator to retreat with precipitation. I made a drawing of the part least destroyed.

After leaving this tower we came to the Mediterranean Stairs, which

consisted of 280 steps, partly cut by art, and partly by nature through the crevices of the Rock on the SE corner, which are nearly perpendicular. It is said that the monkeys, which are here wild in 'great abundance from three feet in length, to the size of a kitten' will loose the stones, and heave them on your head in descending the stairs. This inconvenience we were fortunate enough to escape, as the monkeys, owing to the intense heat, did not make their appearance, save hear and there a strolling one. This was confirmed by a sea captain who said they (his party) were in great danger owing to these animals heaving stones down the Mediterranean Stairs. You arrive at the bottom by a great number of winding paths and subterraneous passages. When looking up you are filled with astonishment, and I might add fear, seeing cliffs of an enormous bulk hanging in every direction and to appearance, threatening you with immediate distruction. After leaving the S we approached the W side of the Mediterranean Road. We then ascended the W and S side in order to have a view of St. Michaels Cave. This was the most tedious part of our journey, being nearly on an angle of 45 degrees and so intensely hot that we were obliged to rest every few minutes. The entrance to St. Michaels Cave is about fifteen feet in heighth and ten in breadth and Dr. Morse says 1110 feet above the Surface of the water (see Morse's Geogy. Vol. 2, p. 415.) On entering the cave, a severe chill instantly runs through the body, similar to the feeling on entering an ice house. By the light at the entrance, we could discover about 150 or 200 feet into the Cave, which has a gradual slope, the roof which is perceivable at the entrance has the appearance of being supported by pillars of petrified water of immense bulk, which are continually increasing by the dripping of water from the roof. After entering about 150 to 250 feet it is extremely dark, which puts you to the necessity of groping your way, the mud and water in some places up to your knees, with the continual salutation of bats and other night animals (for they cannot be called birds) buzzing round your head screaming, as though concious of being molested in their horrid and gloomy retreat. You are also saluted with a continual hissing which I was informed and which sounded similar to serpents. I proceeded as far as I possibly could, but on loosing sight of the entrance, finding a difficulty in breathing, and not being very partial to my company, I retreated, after breaking off a piece of petrified water, from one of the pillars. Several have entered this cave with torches & ladders and have discovered immense arches about 350 to 400 feet within, but the bottom has never been found as the passages continue to decrease in size till you are actually obliged to crawl on your hands and knees, and the lights by means of the confined air gen-

erally get extinguished, which causes a retreat necessary. After leaving this we passed on the NW side a mortor hewed out of the Rock, capable of heaving 4 tons of shot into the harbour; the Gerananium or Ceane's bill & pickly pear grows spontaneously on the Rock, and is used as hedges.

About 1 o'clock we finished our tour in the very disagreeable condition owing to the heat and exercise, which had not left a dry thread on us. After dining on fricazeed chickens and love apples, we went on board our respective vessels.

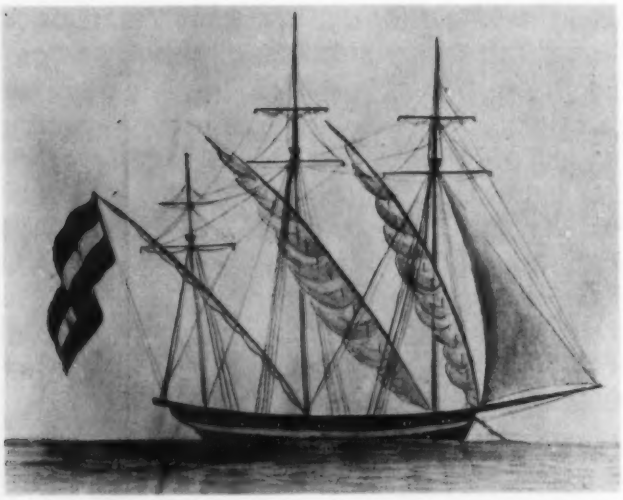
On Monday 8 September we were ready for sea, but upon enquiring of our merchant found the purchaser of our cargo (who had not paid us) was amusing himself at St. Roque, with a cow fight, not being able to find a bull. This cow they fought riding on a jackass, being the substitute for horses. As a Spaniard never will work when he can play, we made ourselves easy untill Tuesday, when Captain B. received his account sales, exchanges, bill of health, &c. But we were surprised after having weighed our best bower, loosed the fore top sails & hoisted our ensign on the main top gallant head, to find that our papers made out in the name of Wm. instead of Geo. The Captain swore a little, ordered the men to let go the anchor, hand the fore top sail and hawl down the ensign, then went on shore. We made ourselves easy untill Wednesday evening being obliged to sail at night, otherwise we should reach Malaga at night, and not seeing it, Cape de Gatt might bring us up, which is about 60 or 70 miles above, and we should have run a great risk of being boarded by the luggers which are cruising throughout the day but generally make a harbour at night. In the evening we weigh'd and stood out the bay, bound for Malaga with a pleasant breeze from the NS which died away before we reached Europa point, and we were drifting at the mercy of the waves within gun-shot of the Spanish batteries 20 or 30 minutes. The captain ordered the lights to be dowsed to prevent the Spaniards from seeing us, but our cook fearing that he would be put to the necessity of striking another, thought he would try a philosophical experiment by placing the lanthorn in the steerage and covering it with a tarpaulin, which presently took fire. We then had a fine blaze issuing from the steerage, which reflected on the sails, and I believe we were not only seen from Algeceras but also from Gibraltar, Ceuta, St. Roque and from all the towns on the neighboring coast. However, after heaving the lanthorn, tarpaulin &c., over we were again in total darkness. About this time we were favored with a light breeze, and we drifted up at the rate of about 3 or 4 Knots, passing a ship & a privateer but neither molested us. Continuing, kept near the Spanish shore, where the current sets down.

Thursday, at about 8 o'clock A.M. we were abreast of Estapona. It is a small town on the Spanish shore with one church & is well fortified. It was at this time a dead calm, which had continued nearly all night but at 10 A.M. a light breeze from the eastward (dead ahead) sprang up and we continued to beat throughout the day. At night we made a land mark & to our great surprise found ourselves on Friday morning in the very same place we had started from on Thursday night. Again it became calm and continued throughout the day and night. Saturday morning a heavy fog set in & we lost Sight of the land, but stood off and on. We were now within three hours sail of Malaga, at this time a light breeze from ENE sprang up & we spoke schooner *John & William,* Captain Hedge, 35 days from Boston, with fish & flour, also bound for Malaga. Between 10 & 11 A.M. we discov'd a town situated at the bottom of the bay at the foot of a high mountain, which answered Morse's geographical description of Malaga. Of course we stood for it, as the fog was disappearing. The scene was now altogether changed and we ran about four miles, when to our mortification and astonishment found it to be Marbella, a town which had been in sight two days. Accordingly we tack'd ship and commenced beating, in order to get out of the Bay, which was accomplished at about 6 o'clock P.M. and continued beating throughout the night.

Sunday morning at 7 o'clock we discovered Malaga situated at the bottom of a bay at the foot of a mountain. At 9 o'clock it became calm, but being determined to try which would master — the elements or ourselves — we lowered the long boat and commenced towing, when a light breeze sprung up in our favour. We spread all our canvas in order to reach our destined port, which we accomplished at about 5 P.M. On entering the bay we were met by a number of American Captains, who came off in boats to hail and inform us that we were to perform forty days quarantine, and of course we made up our minds not to go on shore. At six we came too in about eight fathom water, when the Pratique (or health boat) came off from the shore with a crew, bearing more resemblance to sick monkeys than to human beings, who demanded our bill of health, which we delivered at the end of a Stick about ten feet in length, which they reached to receive it. After taking it on board they wet it with vinegar, fearing the plague or yellow fever might be in it. Poor superstitious, miserable D—s!! They then informed us we might hawl into the fleet but Captain B. not being determined whether he should sell his staves at Malaga or Alicant chose to ride where we were. Malaga is a large city in Granada, of a circular form situated at the bottom of a large Bay. The shipping is protected from Storms on the SW by a large ledge of rocks. There is in the city a

Journal of a voyage from Boston to Malaga in the Brig *Venus*
From Malaga to New York in the Sch. *Louisiana*, Thomas Davis
By George Barrell

Reproduced from the journal in the collection of Dr. E. Lee Dorsett



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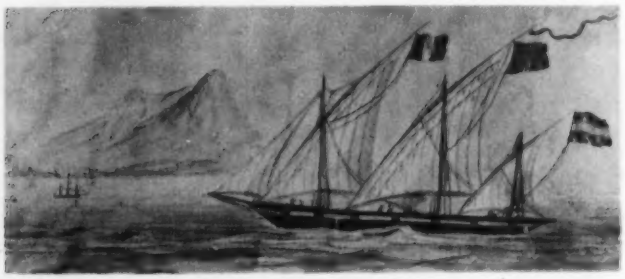
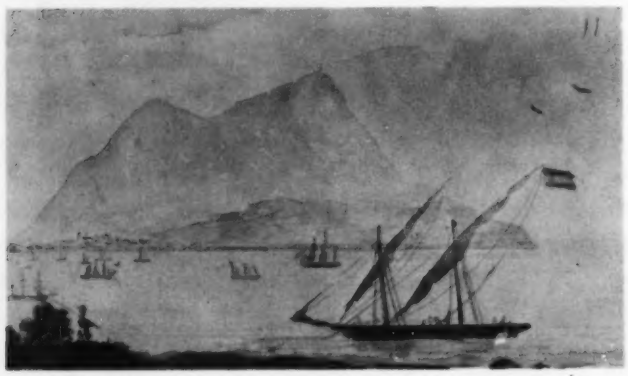


'We were a few minutes sail of Gibraltar when one of the rascally gun-boats run out from a point on the Spanish coast and bore down on us.'



'We found a great number of Americans, Swedes and Danes [at Gibraltar], also the Frigate *Constitution*.'

Sketches from the Journal of George Barrell

Reproduced from the original in the collection of Dr. E. Lee Dorsett

large cathedral began by Philip 2d, but Spaniard-like is not yet finished and probably never will be. Not being permitted to go on shore, I could give no description of the interior. The climate is remarkably serene, for from the time I entered untill I left the Mediterranean, we had but one thunder storm and two showers, which lasted about five minutes. The mountains appear very much parched but the olive vineyards were green and flourishing.

Journal from Malaga to New York in the Schooner Louisiana, *Captain Thomas Davis*

Sunday 20 *September* 1806. At about ½ past 1 P.M. we weighed and endeavoured to beat out of the Bay, with the wind at about SE, and after making one tack we, to our great disappointment, found ourselves in the same place whence we started. However we tryed again but gained nothing, and after making several fruitless attempts, droped our anchor. At midnight a light breeze sprung up in our favour, when we stood out the Bay in company with the American brig *Venus,* Captain Lockyer. At about 10 A.M. on Monday we were nearly abreast of Fangerolla, which has a very strong fort for its protection, altho' there are not more than twenty houses and one church in the place. But the Spaniards are famous for forts, churches and watch towers. These towers are situated along the coast from one to two miles apart and during the night signals are frequently given by a small flashe of light, which signal passes with great rapidity from one to another, but their greatest use, I understand, is merely to prevent smuggling, which business has arrived at great perfection in Spain. We also passed a small town situated on the side of a steep mountain, very strongly fortified but the name of this place was not on our chart. The strength of their forts we were soon in great danger of experiencing, for on passing Fangerolla, which I persuaded Captain Davis to approach too near, that I might take a sketch of it, the garrison fired a shot which however did not reach us. The second, they fir'd at the *Venus,* which vessel being rather nearer than ourselves, hove too; the third was intended for us & altho' I imagine it was one of their best pieces, still it did not reach & we continued our course; the fourth was a Signal for the brig to send her boat on shore, which was accordingly done. Since arriving at New York Captain Lockyer informed Captain Davis that upon landing at Fangerolla he was charged $50 for the four shots & unfortunately not having any money about him, was under the necessity of riding a jackass to Malaga over the mountains, to obtain the amount from his Merchant, which journey detained him four days. At ½ past 1 we were

abreast of Marabella — and at ½ past 4 we were boarded by the cutter of the English brig *Confounder,* commanded by Lt. Dan Dobre, of 14 guns. The officer enquired what vessels we left at Malaga, and the news; then left us and went in pursuit of a lattine lugger, which lay near the shore, but upon examination they found her, I presume, a fisherman, as they soon left her and returned to the brig. About sun set we were nearly abreast of Estapona, at which time I made a drawing of the pillars of Hercules. It being a dead calm we were drifting at the mercy of the current, sometimes ahead at others astern.

Tuesday at about 12 o'clock we were abreast of Gibraltar. At a little before 2 we passed the Rock with a light breeze from the southward. I made several drawings and continued our course through the straights. The breeze at this time freshening a little, we were proceeding on our course with some rapidity when we perceived a boat start from Algerceras, which bore down upon us & fired a shot, but we did not heave too untill they had fired a second. They then boarded us, examined our papers, enquired the news and, Spaniard-like, wanted us to give them some wine. We had none to spare but upon presenting them with some tobacco, they seemed perfectly satisfied and left us. At this time I took a sketch of Cueta, a Moorish fortification, also the city, which is strong and handsome. It is on the African side and nearly opposite Gibraltar. The breeze about this time died away and the current set very strong against us. The nature of this current is very surprizing. The surface of the water will be very smooth. Suddenly it will break, appear much agitated, and cause as loud rippling, as if there was a strong breeze. It is impossible to beat through the gut to windward against this current and vessels are frequently detained six or eight days and sometimes longer at Gibraltar waiting for a levant wind. The Spanish coast is very mountainous and appeared at this season very much parched. The valleys are very rich, producing olives, figs, pomgranates, sugar cane &c. The sides of some of the mountains were covered with vines. The climate is delightful, the air serene. It seldom rains, save in the rainy season, which sets in about the middle of October and continues untill about middle of April. At 7 A.M. breeze freshened from the eastward. We continued our course 'till midnight, when the breeze being very fresh, we ran to windward of an armed brig, who, by way of compliment, discharged a musket at us, when we hove too, fearing to experience the effect of her muskets of a larger dimension. Our canvas at this time made a terrible flapping and backing our topsails, with a 8 knot breeze, which neither pleased the captain or crew, wherefore we concluded to have a race with her, but they took no notice of us and we

imagined she fired owing to our taking the wind from her. We could at this time just perceive Trafalgar, from whence we took our departure.

Wednesday 1 *October* 1806. Pleasant, wind ENE. At day break we had entirely lost sight of the above mentioned cape. In the afternoon passed a Danish ship, which we supposed was bound to England or some other port in the N of Europe, as they were standing NE, but on our coming up changed to N.

Thursday 2. Pleasant. Fresh breezes from NE. In the afternoon saw a large turtle but considered it hardly worth our while to go in pursuit of it. . . .

Sunday 5. Fresh breezes from NE. In the morning discovered a Sail at a great distance ahead, we crowded sail in order to come up with her. The weather was exceedingly squally, obliging us to set & take in top gallant sails every few minutes. At mdn came up with her; she proved to be the brig *George Washington,* Captain Blunt, from Malaga, who left the Straights 2 days previous to us. At sun set the brig was just in sight astern of us. . . .

Tuesday 7. Pleasant light breeze from NE. At mdn we were by calculation abreast Pico and Fayal.

Wednesday 8. Squally and rainy, inclining to calms. During a shower, we perceived one of the most beautiful rainbows imaginable. One end of the rainbow was directly on our larboard bow, the other on our starboard gunnel and altho' we were then going 6 knots, it continued in the same situation several minutes. At 9 A.M. clear, light breeze from NE. At 12 mdn by calculation abreast of Corvo.

Thursday 9. . . . Saw several porpoises, prepared the harpoon but they did not give us an opportunity to heave it in to them. . . .

Saturday 11. Variable winds from N to W with some showers. Saw a sea devil at some distance. Unsettled, squalls & calms. These squalls would rise at one point & go entirely round the horizon before they disappeared, sea very much convulsed. At 8 P.M. it began to blow, set sails, wind increased from SSE, and 'twas as much as the men could do to reduce our canvas before it blew a gale, attended with very heavy showers. We had now handed our square sail, main top & both top gallant sails, jib & flying jib & taken a single reef in our main sail, continued to blow very heavy with constant rain through't the night.

Sunday 12. Heavy gales from N attended with rain. Handed the foretop sail, took double reef in our main and single reef in the foresails. Gale continued. Handed mainsail & scudded under jib and reefed foresail. At night saw large number of fireballs on the deck and lower rigging which

were beat up by the spray; they appeared (upon handling) to be a substance like jelly and the light of them disappear'd in a few moments.

Monday 13. Fresh gales & clear weather. At daybreak fell in with thirteen or fourteen sail, English E. India & South seamen under convoy. They were from St. Helena. The Commodore's ship spoke to us. They were collecting, having been scattered by the gale. Sea very rough, set mainsale at 12 mdn. light breezes continued.

Friday 17 [*October*]. From this time until we made the land, we have had nothing but gales from all points of the compass, have had nothing to eat but raw port & maggoty sea bisquets and untill we sawed up our square sail boom for fire-wood, this supplied us until we passed Sandy Hook after a passage of 60 days. On the 4th of December we came up to the city during the night without a Pilot, passed through Buttermilk channel & on the morning of the 5th of December cast anchor off Coenties Slip.

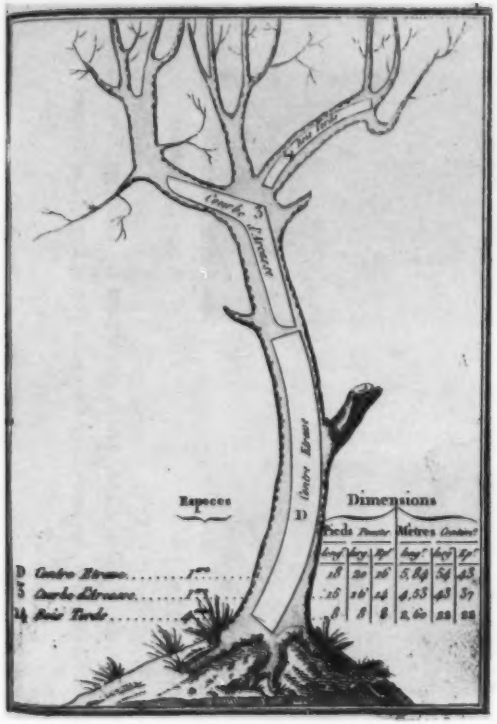
British officers

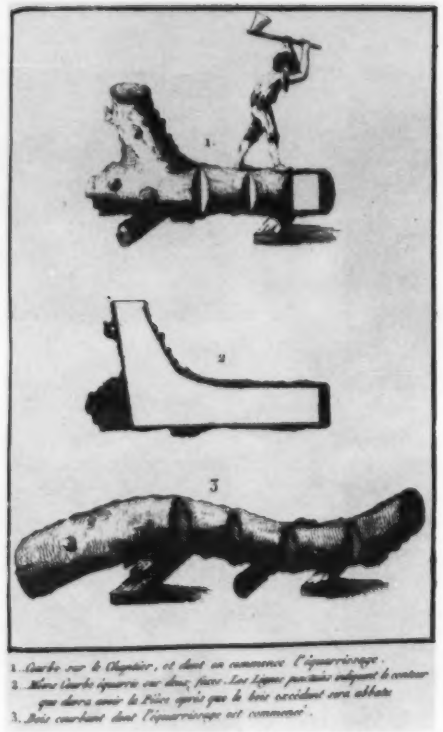
A Gibraltar Jew

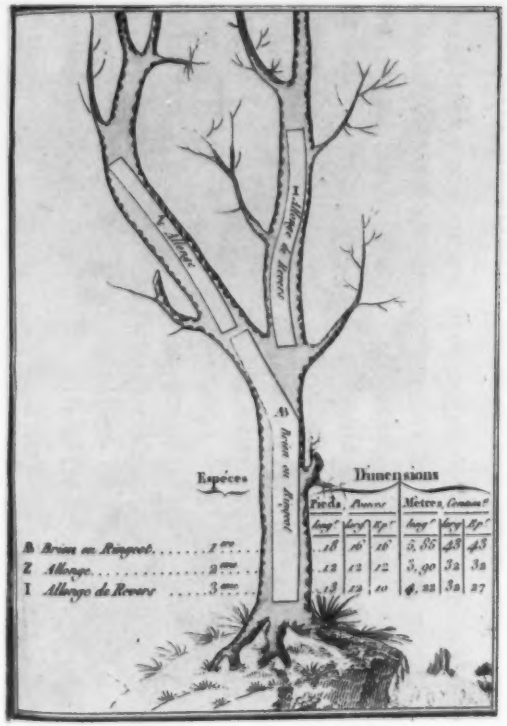
A Scottish soldier

Inhabitants of Gibraltar, 1806, sketched by George Barrell

Reproduced from the journal in the collection of Dr. E. Lee Dorsett




1
2
3
1. Courbe sur le Chantier, et dont on commence l'équarrissage.
2. Même Courbe équarrie sur deux faces. Les Lignes ponctuées indiquent le contour que devra avoir le Pilon après que le bois aura abbattu
3. Bois courbant dont l'équarrissage est commencé.



Selection and cutting of naval timber

Reproduced from Goujon (de la Somme), Des Bois Propres aux Constructions Navales *(Paris: chez Goujon Fils,* 1803)

Cathcart's Journal and the Search for Naval Timbers

BY BESS GLENN

THE *Journal and Report*[1] of James Leander Cathcart and James Hutton is a detailed account of a survey of live oak timber in Louisiana made in 1819. The expedition marked an early attempt of the Federal Government to conserve natural resources for national use and benefit. Under Congressional direction, the survey was designed to assure a supply of timber, adequate in amount and kind, for the construction of ships-of-war.

Oak had long been the material preferred by shipwrights and naval officers for the building of warships. The best American oak for ship timber was conceded to be the live oak, which is an evergreen found in an area roughly twenty miles wide along the Atlantic coast from Maryland to the Gulf of Mexico and somewhat beyond the Mississippi. It is a heavily branched, fast-growing tree, often attaining a height of sixty feet and a diameter of more than four feet. The wood is close-grained, heavy, compact, and resistant to rot. The quality of the wood and the size and shape of the tree made live oak timber well adapted to meet the exacting demands of marine architects in wood. The hulls required pieces of large size and considerable strength—'great timbers,' they were called. Many pieces of curved and irregular shapes were required for futtocks, knees, transoms, and the like, and these—the 'compass timbers'—were best hewed from trees of irregular shape and heavy branching. The live oak provided timbers which met the requirements for strength, size, and shape. In addition, its sap was not acid, and therefore did not corrode metal fastenings. Not the least of its desirable qualities was the fact that

[1] The manuscript of this record is in the National Archives among the archives of the General Land Office. The National Archives has published the record in microfilm form as File Microcopy No. 8, under the title, *Journal and Report of James Leander Cathcart and James Hutton, Agents Appointed by the Secretary of the Navy to Survey Timber Resources between the Mermentau and Mobile Rivers, November 1818-May 1819; With an Appendix Consisting of Copies of Letters Received and Sent.* Microfilm copies of the manuscript on 35 mm. film may be procured by writing to the Director of Reference Service, National Archives, Washington, D. C. The single frame film costs $1.40; the double frame film $ .70.

it did not need a long period of air seasoning—six months of docking was considered sufficient to fit the wood for use. Red cedar, also from the South, was used with live oak in parts of the frame requiring less strength, in order to offset the extra weight of the live oak.

In spite of the excellent qualities of this wood for ship construction it was not used during colonial days by the British, who had been prejudiced against live oak by certain experiences.[2] But the live oak was extensively used by the American colonists for their own vessels. It is not known just when they began using this wood in their ships, although 1750 is usually given as the approximate date. The continued respect of the Americans for live oak is seen in the first plans of the new nation for the construction of its navy.

The first Act of the Congress of the United States concerning the construction of ships was passed on 27 March 1794.[3] This Act authorized the President to provide, by purchase or otherwise, and to equip and employ, four ships of forty-four guns and two ships of thirty-six guns. Appropriation of money for the execution of the Act was not made by Congress until the following 9 June.[4] Henry Knox, Secretary of War, who was at that time also in charge of the naval establishment, believed enthusiastically in the superiority of live oak and red cedar for ship construction, as did also the naval constructors and designers who were associated with him in making plans for the new navy. Knox and his colleagues were determined to make the six frigates powerful and durable fighting ships. Only the best of naval timbers were to be used in the construction, and in their opinion these were live oak and certain other woods from New England and from the Southern coastal belt. No difficulties were expected in obtaining the New England timber, but the situation with the Southern timber was very different. Arrangements were made at once to facilitate the procurement of live oak and red cedar. Advertisements for these timbers were issued in April 1794, but specific arrangements had to await the passage of the Act of 9 June, which made appropriations for the purpose. As soon as the money was made available by Congress, an agreement was made with John T. Morgan, a master shipwright of Boston, to go to Charleston, South Carolina, to search for oak, cedar, and longleaf pine. He was to superintend the cutting of the timber and the rough shaping or forming of the timbers by mould dimensions — the

[2] Robert G. Albion, in his *Forests and Seapower* (Cambridge, 1926), p. 23, says that the English based their judgment of American oak on the New England white oak, a wood which deteriorated badly from dry rot in transit and when used in ship construction.

[3] 1 Stat. L. 350.

[4] 1 Stat. L. 394.

shaping of the timbers was usually done near the scene of the felling, in order to save shipping space and expense. Arrangements were also made with local Treasury officials in Charleston and Savannah for the negotiation of contracts with private suppliers in North and South Carolina and in Georgia.

This enthusiastic activity soon met difficulties. Local labour in the South was hard to get; the timber grew in swampy places difficult of access, and transportation to the loading docks was slow and hard; shipment of the timber was hazardous; the rains near the coast were heavy and frequent; and the climate by this season was unhealthful, as the delay in the passage of the appropriation bill had postponed the cutting until the hot summer. Axmen and ship carpenters from Connecticut were brought into Georgia in September 1794, and at first the results of their labours were gratifying – within two months a cargo of Georgia live oak reached Philadelphia, where the frigate *United States* was to be built. Captain John Barry was sent to Georgia in October 1794 to check on the work of the timber cutters. In December of that year he reported to the Secretary of War his great satisfaction with the progress being made under Morgan's superintendence, and his conviction that an ample supply of live oak timber would soon be available for the construction of the frigates. But the woodcutters would not stay when the summer of 1795 approached. All except three left, but despite this and other hindrances the work was continued. After considerable difficulty and much delay, three of the six vessels which had been authorized by the Act of 27 March 1794, were completed in 1797. These were the frigates *United States*, launched on 10 May at Philadelphia, *Constellation,* launched on 7 September at Baltimore, and *Constitution,* launched on 21 October at Boston. By 1800 the three other vessels, authorized by the same Act, were off the ways, although the construction of one of the ships, the *President,* was delayed when a schooner laden with live oak for her frames foundered off Hatteras.

Although many hardships and trials continued to be experienced in the procurement of live oak, naval officials held to their conviction that the wood was indispensable, and recommended that the United States should acquire lands bearing such timber. On 25 January 1797, a committee appointed to inquire into the state of the naval equipment ordered by former Acts of Congress – an early 'Truman Committee' – reported that it would be expedient for the Government to secure some of the lands in South Carolina and Georgia which were 'well clothed with live

oak and red cedar timber, for the purpose of building ships of war.'[5] Benjamin Stoddert, first Secretary of the new Navy Department, writing to the House Committee on the Naval Establishment on 29 December 1798, suggested that the Government should buy one or two of the most valuable sea islands off the coast of Georgia.[6] As an alternative Stoddert proposed that the Government buy the timber as the land was cleared. The South, although aware of the value of its timber, was primarily interested in agricultural activities, and at this time the cultivation of long staple cotton was receiving increasing attention among Southern planters. The coastal regions, particularly the islands off the coast, were especially suited to this product — the first bale of long staple cotton exported from this country, in 1788, was grown on St. Simons Island, Georgia. Land in these regions was often cut and burned over with no thought given to the destruction of timber so eagerly sought after by the Government. Stoddert seemed well informed of this undesirable practice, and his letter also pointed out to Congress the wisdom of educating the people to the need of preserving timberlands of all kinds.

Stoddert's suggestion for the purchase of live oak lands was well received by the committee and was promptly acted on by Congress. Hardly two months later, on 25 February 1799, an Act was passed authorizing the payment of not more than $200,000 for 'the purchase of growing or other timber, or of lands on which timber is growing, suitable for the Navy.'[7] Pursuant to this Act, two islands off the coast of Georgia were bought. One of these, Grover's Island, consisting of about 350 acres, was acquired by warranty deed from Josiah Tattnall, Jr., for $7,500 on 19 December 1799. The other, Blackbeard's Island, comprising 1,600 acres, was acquired by deed poll from the United States Marshal of the District of Georgia in April 1800, at a cost of $15,000.[8]

After a temporary setback in 1801, caused by Jefferson's indifference toward the Navy and by an economy-minded Congress, the naval con-

[5] *American State Papers*. Naval Affairs, I, 25-26.

[6] Ibid., I, 65-66.

[7] 1 Stat. L. 622.

[8] These islands remained in the ownership of the Navy Department for over 125 years. An Act of 7 June 1926 (44 Stat. L. 700) provided that the Secretary of the Navy, upon direction of the President, should transfer certain lands held by the Navy Department to other Government agencies, or dispose of them at public sale. Blackbeard's Island, before the passage of this Act, was used for several years as a bird sanctuary by the Department of Agriculture. By Executive Order No. 4512, dated 20 September 1926, President Coolidge transferred the island to the Department of Agriculture as a bird refuge. Grover's Island, though owned by the Navy Department, was turned over to the Department of Agriculture in 1922 for experimental work by the Bureau of Plant Industry in relation to cotton breeding. The Department of Agriculture relinquished use of the island in 1925. On 27 December 1927, by public sale, Grover's Island was sold to Mr. James F. Russell, of Kingsland, Georgia, for $6,667.50.

struction program, stimulated by war with Tripoli and later by hostilities with the British, revived, and the Navy persisted in its search for Southern timber. The two Georgia islands were considered too small to furnish much timber; the most practicable means of getting live oak was through contract with private owners. American confidence in the Navy surged high after 1812. In a long letter dated 15 November 1814, Secretary of the Navy, Jones, writing to the Senate, strongly urged Government ownership of 'all the valuable species of oak which is found only on the Southern seaboard.'[9]

The Act of 1 March 1817, was the natural result of the long-recognized value of live oak and the persistent advocacy of the Secretaries of the Navy for national possession of lands bearing timber suitable for naval purposes. It provided for the exploration and reservation of lands bearing live oak and red cedar, and empowered the Secretary of the Navy to employ agents and a surveyor for the exploration.[10]

Under the authority of this Act, James Leander Cathcart and James Hutton were appointed by President Monroe to act as agents for the Navy Department on the expedition, and John Landreth was appointed as surveyor. The exact dates of the appointments are not included in the *Journal* and have not been located in the records of the Navy Department, but the time can be fixed as between 18 September and 4 November 1818. A letter dated 17 September 1818, written by the Chief Clerk of the Navy Department, Benjamin Homans, for the Secretary of the Navy, to James Rodgers, president of the Board of Navy Commissioners, informed Rodgers that the schooner *Nonsuch* was to be used by the agents and surveyor 'when the President shall have designated the persons for that service.'[11] A letter dated the following day, also addressed by Homans, for the Secretary, to Rodgers, states that the President had not yet designated the agents or surveyor.[12] On 4 November 1818, John C. Calhoun, Acting Secretary of the Navy, wrote to Rodgers that the President had decided to appoint James L. Cathcart and James Hutton as agents, and John Landreth as surveyor.[13] It seems that either Cathcart or Hutton was not first choice as one of the agents, as on 14 October 1818, Homans, acting for the Secretary of the Navy, wrote to Stephen Sayre, of Brandon, Middlesex County, Urbanna Post Office, Virginia, offering him an ap-

[9] *American State Papers*. Naval Affairs, I, 321-322.

[10] 3 Stat. L. 347-348.

[11] National Archives, Letters from the Secretary of the Navy received by the Board of Navy Commissioners, 1818-1819.

[12] Ibid.

[13] Ibid.

pointment as agent for the survey.[14] Sayre, however, died before receiving the offer, which was answered by his son.[15] It is likely that it was Cathcart who was selected as a substitute for Sayre, since Hutton was an obvious choice for the appointment, as he had had considerable practical experience with the procurement of ship timbers, and had already given much service to the Navy in examining timberlands.

Calhoun's letter of 4 November 1818, announcing the appointment of Cathcart, Hutton, and Landreth, requested Rodgers to draw up instructions for the agents, and also asked Rodgers' opinion concerning suitable compensation for the men. Rodgers replied next day, stating that the necessary instructions would be prepared at once. He expressed the opinion that Cathcart should receive an annual salary of $2,500, and that Hutton should continue to receive the annual salary of $2,000 which he had been receiving as superintendent for moulding and inspecting timber; Landreth's salary, he thought, should be $2,000.[16]

On 13 November 1818 Rodgers addressed a long letter of instructions to Cathcart, who seemed to be recognized as the leader of the expedition.[17] He pointed out that in authorizing the exploration of unappropriated lands bearing live oak and cedar, the statute did not specify the localities to be surveyed and that they would have to rely on general information concerning the location of such lands. James Hutton, who, Rodgers said, was a practical shipwright, had had considerable experience in examining live oak timberlands for the Navy Department, and the Commissioners had decided to depend on him and on Commodore Daniel T. Patterson, of New Orleans, for information as to which tracts of timber should be surveyed. It was expected that additional information could be obtained from Thomas Freeman, Surveyor General at St. Stephens, Alabama Territory. Rodgers directed Cathcart to keep 'a journal or notebook in which you will set down your daily proceedings, and all the information you may obtain, and observations you may make touching the tract or tracts you may be surveying. When you shall have explored and surveyed such tracts of land as you may select, you will make a special and detailed report thereon accompanied by accurate maps, plans, sketches, to the Honorable the Secretary of the Navy.'

[14] National Archives, Letters sent by the Secretary of the Navy. 'General Letter Book No. 13.' No. 6.'

[15] National Archives, Letters received by the Secretary of the Navy. 'Miscellaneous Letters, 1818,

[16] National Archives, Letters sent to the Secretary of the Navy by the Board of Navy Commissioners. 'Letters to Secretary of the Navy, No. 1.'

[17] National Archives, Letters sent by the Board of Navy Commissioners. 'Miscellaneous Letters No. 1.'

Cathcart followed these instructions to the letter and kept a minutely detailed account of the exploration. The resulting journal is more than a historical document relating to an interesting minor phase of United States naval development. As the reaction of an incisively observant and critical mind on the social customs, people, ethnological relics, and physical geography of Louisiana at an early period in the history of that state, it is a document of considerable interest and value for local history. As a relatively unknown manuscript of a man who played a vivid though small role in the early diplomatic history of the nation, it is a worthwhile addition to the known Cathcart papers and a revealing source for the study of the man's personality.

James Leander Cathcart was born in Ireland, at Mount Murragh, in 1767, and was brought to America as a young child. In 1779 he served as a midshipman on the Continental frigate *Confederacy*. As a seaman on the schooner *Maria* of Boston he was captured in 1785 by an Algerine xebec and was made prisoner in Algiers. Cathcart was both intelligent and resourceful and seemed to fare very well during his captivity, serving in a series of increasingly important clerical positions, finally rising in 1792 to the post of chief Christian secretary to the Dey and Regency of Algiers. He claimed considerable responsibility for the Dey's reception of Joseph Donaldson and for the release of the American prisoners in 1795. After the establishment of peace he was assigned several diplomatic errands in North Africa, in the performance of which he often got himself into the bad graces of his own countrymen and of the foreign potentates. He was called *embroglione* by the Bey of Tunis, and on various occasions was described by fellow citizens as arrogant, dictatorial, and overly self-assured.

Cathcart's naval and diplomatic experience is very evident in his *Journal*. His account of the voyage from Cape Henry to New Orleans, with which the *Journal* begins, is extremely nautical in tone, giving daily record of the course, observations of latitude and longitude, thermometer readings of deck, cabin, and water temperatures, and remarks concerning the winds and waters. His comments concerning the customs of the people of Louisiana and his observations touching on the plant and animal life of the region take on the pompous tone of a supercilious observer reporting on the strange social habits and terrain of a foreign country—which, in truth, Louisiana almost was at that time. His description of the town of St. Martinsville, on page 52 of the *Journal,* is typical:

St. Martinsville in the parish of St. Martins, County of Attakapas, contains about 100 houses and probably between 6 and 700 inhabitants, it has a Gothic built church, Jail, and Courthouse, likewise an apology for a Ballroom; some of the wealthy live decently but that is by no means general. Some few houses are in part built of brick, but mostly of mud, and many of the old wealthy inhabitants retain their original shed, with very little improvement to cover them.

Cathcart had been instructed by Rodgers to sail in the schooner *Nonsuch* from Baltimore to New Orleans, where he was to be joined by Hutton, who was already engaged in examining live oak in that section. On 19 November 1818 Cathcart and Landreth sailed from Baltimore, bound for Norfolk, on the steamboat *Virginia,* the *Nonsuch* being delayed at Norfolk in preparation for her voyage south. They reached Norfolk the following day, and after a week's delay, the *Nonsuch* sailed for New Orleans with her passengers. During the month of sailing Cathcart busied himself keeping a detailed log of the voyage. On approaching New Orleans he was stirred at the sight of the Mississippi, and set down thoughts which seem a strange mingling of prophecy and provincialism. He wrote: 'On entering the Mississippi . . . the mind naturally expands in contemplating the destiny which awaits it, the only grand outlet to the increasing commerce of an Empire, equal now to many, and at no distant period will be superior in wealth, population and resources to any in Europe, Russia alone excepted, of which New Orleans will from necessity continue to be the Emporium.' He recorded his regrets concerning the shallow bar and annual floods which prevented New Orleans from being 'the first commercial city in the Universe,' expressing the opinion that the necessary corrections to those conditions would not be made before the population and wealth of the state and the wisdom of the legislature should be sufficient to make the necessary improvements. It was Cathcart's belief that the prerequisites of population, wealth, and wisdom would not be realized until the majority of the citizens were native Americans who were from northern or eastern states, or were descended from natives of those states.

The careless *joie de vivre* of the citizens of New Orleans and their indifference to such matters as harbor improvement seemed to offend Cathcart, who recorded that they confined their enterprise to gaming houses, which were licensed by the municipality and from which the city derived revenue used in relieving the poor. 'Thus virtue is supported by vice,' he commented.

Cathcart and Landreth arrived in New Orleans on a Sunday, 27 December 1818. Hutton, they learned, was at Franklin. After consultation

with Commodore Patterson and following the completion of necessary preparations for their expedition, they embarked, on 4 January 1819, aboard the steamboat *Governor Sheldon* for Plaquemine, northward up the Mississippi. From Plaquemine, by water and by portage, they went to Franklin, where they arrived on 12 January, joining Hutton. By this time Cathcart had experienced many of the hardships and irritations which usually attend explorations. He had also suffered a severe attack of diarrhea, which he recorded in somewhat Pepysian detail. Perhaps it was the low spirits induced by these circumstances which caused him, on the eve of the real beginning of the survey, to report to the Board of Navy Commissioners in a letter dated 14 January 1819,

> I hope the expectations of the Government may not be too sanguine as to the result of this survey, but it is a well known fact that in East Florida alone there is a much larger quantity of better timber and of easier transportation than in all the country we propose to survey, which I hope may soon be in our possession, but you may be assured that no personal consideration will deter us from procuring correct information.[18]

Two days after writing this letter Cathcart, with his two colleagues and the boatmen they had hired, left Franklin to begin the survey.

Their route took them through a considerable portion of southern Louisiana, through bayous, creeks, swamps, and rivers. They went up the Teche to St. Martinsville, then back down the Teche and on to Belle Isle. From there they went to Lakes Chetimaches, Palourde, and Chico, surveying the lake islands. Here they found a large quantity of good live oak, with convenient water carriage to the Mississippi. From these regions they returned to New Orleans, leaving there after a few days to go by boat to Mobile and thence to St. Stephens, where they stopped the sale of certain lands on the Alabama River. From St. Stephens they proceeded to Claiborne, going down the Alabama River to Cedar Creek to examine red cedar timber there, in accordance with a request expressed by Rodgers in a letter of 17 February 1819, addressed to Patterson in New Orleans.

Their examination of the Cedar Creek lands marks the end of the survey. They returned to Mobile on 18 April 1819, and a few days later sailed in the *Nonsuch* for Baltimore. They reached Baltimore on 18 May, and next day went to Washington, where they called at the Navy Commissioners' office. Finding the Commissioners out they went over to see the Secretary of the Navy, but he too was away, so they talked with Chief Clerk Homans, promising a full and prompt report of their survey.

[18] James Leander Cathcart, 'Journal and Report.' Appendix, pp. 4-5.

The letter of transmittal contained in the *Journal and Report* is not dated. Evidence from letters in the archives of the Navy Department indicates that on 28 May 1819 Cathcart apparently submitted the journal to the Department. In a letter of 9 June 1819, Rodgers wrote Cathcart, 'Your letter of the 28th ult. accompanied by a journal of the proceedings of the agents sent under the instructions of the Board of the 13th November 1818 has been received.'[19] Rodgers went on to convey the approval of the Board, and he also made it clear that they wanted, in addition to the journal, the report which the instructions of the Board had directed. He continued, 'They return it to you, in order that such extracts from it may accompany your report, and plans of the grounds reserved, as you may consider relevant to the subject.' During the interval between his receipt of this letter and the returned journal, and 6 August 1819, Cathcart prepared the *Journal and Report,* the original of which, with hardly a question, is the manuscript now among the archives of the Department of the Interior in the National Archives. On 6 August 1819, Rodgers wrote to Cathcart and Hutton, acknowledging receipt of their letter and 'summary recapitulation of and reference to a Journal delivered to the Office of the honorable Secretary of the Navy.'[20] The manuscript in the National Archives contains, in addition to the journal, a special section headed 'Recapitulation of and Reference to the Contents of the Preceding Journal,' along with other related materials, including a separately paged appendix consisting of copies of letters pertaining to the survey. The entire manuscript is in Cathcart's handwriting. The signatures of Cathcart and Hutton, in their characteristic hand, appear in several places.

Obviously a Navy Department record, the *Journal and Report* was probably transferred to the General Land Office because of the functions of that Office in connection with Government-owned lands. The date of the transfer is probably after 1827, as in that year Samuel L. Southard, Secretary of the Navy, addressed a lengthy communication to the Chairman of the House Naval Committee in which he refers to the Cathcart records in a manner which suggests first-hand knowledge of them.[21]

The immediate results of the survey made by Cathcart, Hutton, and Landreth are unimpressive. On 29 February 1820, President Monroe reserved several of the islands in Lake Chetimaches, and an agent was

[19] National Archives, Letters sent by the Board of Navy Commissioners. 'Miscellaneous Letters No. 1.'

[20] Ibid.

[21] *American State Papers.* Naval Affairs, III, 47-50.

appointed to guard the reservation from depredations, but years passed without the cutting of the timber by the Navy.

The neglect of the Louisiana lands was probably caused chiefly by the acquisition of the fabulously rich sources of live oak in Florida, ceded to the United States by a treaty ratified in 1821. The Government reserved for itself a considerable amount of the Florida timberlands, although reservation was impeded by complications of titles. Meanwhile, surveys of lands in South Carolina, Georgia, and Florida continued. The uncontrolled and widespread cutting of live oak trees gave rise to the fear that the nation was in danger of having its woodlands denuded of that valuable tree, and a plan for the planting and cultivation of live oak plantations in Florida was undertaken, resulting in political scandal. Despite the depredations of illegal timber cutters, the hardships of surveys, and the complexities of politics, the Navy continued to seek and to use the well-proved timber of the live oak until progress in methods of propulsion and new developments in marine architecture brought the end of the era of wooden ships.

Notes

Antonio Nicolo Gasparo Jacobsen

Miss Mary Whitmore of the Marine Museum of the City of New York has made available for publication in The American Neptune the following biographical sketch of the New York ship portraitist, Antonio Jacobsen, which she obtained from his son, Mr. Alphonse T. Jacobsen.

Antonio Nicolo Gasparo Jacobsen, descendant of a long line of makers of fine violins in Denmark, was born in Copenhagen on 2 November 1850.

Ole Bull, the famous violinist, friend of the family, who was at the christening, insisted that he be named after the great violin makers of the world, Nicolo after Amati, Antonio after Stradivarius, Gasparo after Bartolotti da Salo, hence the unique names for a Dane.

The family expected him to become a musician, and he did become sufficiently proficient with the violin, viola and cello, to derive much happiness later in life. But he was fascinated by the sea and ships and he told with much emotion of seeing often, when a boy, the great sailing fleet of Denmark entering Copenhagen Harbor under full sail, the billowing canvas, the sun glittering on the blue water, and all the great ships of other nations riding at anchor. As a small boy, escaping family vigilance, he haunted the quays, spending all his allowance hiring small boats to go aboard ships at anchor, plying everyone with countless questions, so that years after, he was immensely proud of the accuracy of his painted ships, of every line and pulley which any seaman could scrutinize and find no technical fault. He often said with a twinkle, that he was 'not an artist but a painter of floating property – ship portraits.'

At the outbreak of the Franco-Prussian War in 1870, the family fortunes waned. At that time all large houses were arranged in such a way that there were frequently shops on the ground floor, maybe a count or a baron on the next, the family on the next and so on along the social scale until the top or garret was peopled by students and servants. So, when the government quartered ten men on the family, to be housed and fed, all these paying people had to be asked to leave. And, as in all wars, cultural and constructive activity stopped and business was ruined. He was obliged to leave the Royal Academy of Design where he had been a student, and take a position in a great commercial house in the city.

He had a picturesque repertoire of stories of 'home.' He told how in summers the family visited an uncle who was chief steward at the Palace (who by the way, lay in state when he died, in the Royal Palace, an immense honour) who had a cottage in the grounds of the summer palace—a vast and beautiful park called 'Sorginfru' (Sorrow-free). Every day at three o'clock the Queen in shining coach, drawn by six black horses, coachmen, footmen, outriders thundering ahead, all in livery, drove through the park in great splendour. Often, while walking with their mother, the Jacobsens met the cavalcade, and bowed deeply in awe and pleasure.

Occasionally they were invited for tea at the palace; there were always delectable little cakes and confections, etc. Sometimes the Queen herself gave them presents, among them a lovely Sevres vase, and an ancient ivory snuff-box with a miniature painting on the lid, still treasured by the family. And he

told of an unexploded shell dating from the British bombardment of Copenhagen, lodged in the tower of the Church of Saint Nicolas, where the family was permitted to hang violins in certain stages of drying, high from dust. And many other stories he told of Denmark, and sang with gusto her songs telling of her history and folklore, of her achievements, of her great national heroes.

Like all people of his temperament he loathed all violent things, war and all its concomitants. Feeling that compulsory military training for such a tiny country was absurd, the vital years of a young man's life wasted, he deliberately at twenty-one, in 1871, made a momentous decision—he fled to America, before this time was due. This, of course, was a serious offense and his share in the family estate was confiscated. (Many years later the present King reinstated all such—a sort of vindication).

He told of his unutterably desolate first Christmas Eve, alone in New York, a wonderful night of family festivals in Denmark, with all the family gathered about a great tree, banked with presents and dancing and singing after a tremendous and ceremonious dinner.

He studied, and painted and went to concerts, lectures, and galleries and museums, reading endlessly, and playing the violin, absorbing much good music.

Soon after his arrival here he was employed by the Marvin Safe Co., to decorate safe doors. One day an official of the Old Dominion Line, watching him paint, asked if he could also do marine scenes—the thing he preferred to do above all else! This started him on what was to be his life work. Pictures of various steamers of the country were ordered. This contract was followed by orders for pictures of all the Fall River steamships such as the *Newport, Providence, Metropolis, Massachusetts* and many others. They were so pleased with the paintings that he was commissioned to go to Fall River to sketch from what little was available of their early steamers the *Bay State* and *State of Maine.* At this time he was completing, for the newly organized White Star Line pictures of their vessels, the *Oceanic, Celtic, Baltic,* etc.

On 6 July 1878, he was married to Mary Melanie Schmitt at the Church of the Strangers in New York City. The Fall River Line gave him as a wedding present a trip on their fine new steamer *Bristol* to Fall River in the bridal suite. The honeymoon was spent in and about Fall River and Boston, where his wife, daughter of an Alsatian schoolmaster, had been born and brought up.

In 1880 he moved to West Hoboken (later called Union City) New Jersey, to a large house with a lovely garden, huge trees and flowering bushes of great varieties. There was a magnificent view of the Hudson River and all New York beyond it. Here he lived happily for many years with his wife, and after twelve years, three children arrived to make them happier still. They were Helen, Carl, and Alphonse.

Several of his paintings hang in the Museum of the Historical Society in New York City. He loved to say that his pictures could be found anywhere from a mansion to a tavern, and friends told him often, upon arriving in Europe: 'The first thing I saw was one of your paintings!' He loved horses and found good excuses for having them. He said gleefully that he had always vowed that he would never push a baby carriage—hence the first! Also, he must deliver his pictures.

He knew other artists of his day including S. Ward, Fred Pansing, who lived nearby in Jersey City, James Bard, the oldest marine artist whom we have to thank for many examples of early steamboats, Fred Cozzens and Buttersworth. Later, Wood and A. F. Bishop of New Haven, Connecticut.

In 1909, his much loved wife died. In 1917 a fire destroyed much of his home.

In May of 1918 his two sons were inducted into the army. And, the war ruined his business, just as another war ruined his family years previously. All this darkened his life beyond knowing, and on 2 February 1921, he died.

ALPHONSE T. JACOBSEN

The Brig 'Betsy' of Norwich

In the January 1943 number of The American Neptune (III, 19-25) there was printed the interesting log of 'The Disorderly Voyage of the Brig *Betsy*' on her passage from New London, Connecticut, 8 November 1796, Captain John Clark. This vessel is identifiable as the *Betsy* of Norwich, built at Braintree, Massachusetts, in 1785. The earliest extant register now in The National Archives was issued 23 July 1794 at Baltimore, Maryland, as permanent register no. 105. The owners of the brig, then called the *Betsy* of Boston, were Henry Payson and Benjamin May of Baltimore, Maryland, Ebenezer Wales of Dorchester, Moses and Aaron Davis of Roxburgh, and Epriam Wales of Boston, Massachusetts. It had previously been enrolled at Boston, 12 April 1794, permanent enrollment no. 63. 14 February 1795, a new permanent register was issued at Boston, no. 46, James and William Cunningham of Boston being the owners. According to temporary register no. 262, issued at Boston, 26 September 1795, the brig had become the property of Andrew and Joseph Perkins of Norwich, Connecticut, merchants, and 30 November 1795, permanent register no. 59 was issued at New London, Connecticut, the district where the owners resided. At the time the vessel sailed on its disorderly voyage, it was registered under this document, and belonged to Andrew and Joseph Perkins.

The brig is described as having two decks, two masts, a square stern, no galleries and no head. It was sixty-eight feet, two inches in length, twenty-one feet, two inches in breadth, and ten feet, seven inches in depth, measuring one hundred and thirty tons. The master for Henry Payson and his partners was Silvanus Coffin; the master for the Cunninghams was Philip Marett; and the masters for Andrew and Joseph Perkins, Gideon Porter of Lisbon, Connecticut, Jonathan Lester, and John Clark who took his oath, as required by law, 7 November 1796, the day before the brig weighed anchor for its eventful voyage.

When Jonathan Lester was master, Andrew and Joseph Perkins had once before sent the vessel to the West Indies. As his manifest shows, he cleared for Surinam, 30 November 1795 with 165 barrels of beef, 84 barrels of pork, 40 mules, candles, butter, hoops, staves, shooks, heads, prest hay, bread, beans, sheets, oats, corn, potatoes, 11 Ranim hats, and 6 pairs of boots. The brands of beef and pork indicate the extent of the local market upon which the Perkinses drew for their products. David Wore, Inspector, packed 73 barrels of the beef, E. Demming of Windham packed 61, T. Day of Norwich packed 13, and T. King of Norwich packed 18. S. Mori of Norwich packed 28 barrels of the pork, S. Fox of Plainfield packed 32, L. Claarland of Canterbury packed 15, T. Grow of Hampton packed 8, and Bibbins of Mansfield packed one.

The cargo of the brig *Betsy* when it sailed on its voyage to Wilmington, North Carolina, 7 November 1796, consisted of 300 bushel of potatoes, 6,000 weight of cheese, 20 barrels of New England rum, 70 barrels of cider, 30 tons of building stone, 2 jacks, 12 barrels of beef, 3 of pork, 600 bread, 30 sides of leather, a frame and covering for a store, 16 bundles of hay, 5 boxes containing saddles, shoes, and sheets, 6 barrels of apples, a parcel of stone ware, the passengers' baggage, and 3 tierces of sevenbams[*sic*] nuts. These nuts were evidently savines, or juniper berries, in German, *sevenbaums*. The shippers were

Andrew and Joseph Perkins of Norwich, and the whole was consigned to the captain.

The fate of the brig *Betsy* does not appear in the records at hand. Andrew and Joseph Perkins do not seem to have put in a claim for the spoliation by the French, as they might well have done under the claims of 1803. Asa Whipple of Norwich, 10 November 1797, received as the new owner of the brig, permanent register no. 33, from New London, Connecticut. Richard D. Starr was his master, and 13 November 1797, the brig sailed with a crew of seven men and a cargo of beef, pork, fish, potatoes, lumber, brick, corn, oats, mules, poultry, hay and bread, bound for Grenada.

DAVID C. DUNIWAY

A Durham Boat Migration

Shortly after my note on the Durham Boat[1] was published in The American Neptune, I received a letter from Mr. Clinton De Witt of Oconto, Wisconsin, telling me that the same type of boat, known by the same name, had been used on Wisconsin Rivers by the early settlers. To reinforce the retelling of what was frankly a tradition Mr. De Witt quoted a paragraph from an obituary printed in an unidentified local newspaper.

'He [Captain Clermon, the subject of the obit] served in the Black Hawk War in 1832 and then after a few years of mail carrying, became Captain of a Durham Boat, at $2 per day and board. These boats were monster affairs, some sixty or seventy feet long, and carrying from twelve to sixteen tons of merchandise each. . . .'

Such a migration of watercraft types is by no means uncommon in this country: the travels of the Fairhaven sharpie not only down the coast to North Carolina and Florida but also two thousand miles overland to Nevada is a case in point.[2] But how these types have moved to new scenes is well nigh impossible to establish with any degree of accuracy. Mr. De Witt, however, has been able to do just that. The result of his search is so conclusive that I am summarizing it for The American Neptune.

In the year 1731, just about the time the Durham Boat came into use, one Johann Berndt Arndt, a Palatine, landed in Philadelphia from the ship *Pennsylvania Merchant* and settled near the Delare River above the city. His grandson, John Penn Arndt (born 23 November 1780) grew up within easy reach of the river. About 1800 he moved west to Wilkes-Barre, Pennsylvania, and there set himself as a boat builder. Soon he was turning out boats on 'an extensive scale.' Whether these were Durham Boats is not recorded, but they probably were because it is known that the Durham Boat was widely used on the upper reaches of the Susquehanna. It is recorded that in 1803 he even built a 12-ton sloop, the *John Franklin,* which somehow managed to reach tidewater. During the depression which followed the War of 1812, Arndt moved west again and in 1824 settled at Green Bay, Wisconsin.[3] He seems to have started to work at his old trade almost at once, for a lease granted to Arndt by three Indians, Oaskask, alias 'The Claw,' Oh-he-nie-nechan, alias 'Great Wave,' and Sthai-ketok, alias 'Scare All' dated 25 August 1826 attests that Arndt had acquired the site for, and had built a saw mill on the west shore of Green Bay.[4] This of course gave him a supply of lumber. The type of boat John Penn Arndt built here and

[1] The American Neptune, II, 167 ff.

[2] Vide E. P. Morris, *The Fore and Aft Rig in America* (New Haven, 1927), 112-126 and The American Neptune, III, 167.

[3] Ralph Beaver Strassburger, *Pennsylvania German Pioneers* (Norristown, Pa., 1934), I, 45-46; Green Bay Historical Bulletin, VI, No. 4, 8; Wyoming Historical and Geological Society, *Proceedings and Collections,* VII, 47-48.

[4] Brown County (Wisconsin) Court House Records.

the method of its construction are described in a book of reminiscences published by his son, John Wallace Arndt. The story quoted below with a slight rearrangement also establishes that the boat was a newcomer to the locality.

'They were generally from forty-five to sixty feet in length, ten to twelve feet beam, two and a half feet deep, drawing from eighteen to twenty inches and carrying from twenty-five to thirty tons. The bottom was constructed of one and one-half inch oak plank, with one streak above the bend; above this to the gunwale pine was used. The timbers of the frame were of oak, three by three and a half inches, steamed and bent, or worked out of natural crooks; oak beams four or five inches are placed athwart the boat eight or nine feet apart and made to crown or arch four or five inches.

'The waist begins about eight feet from the stern and extends to within eight feet from the prow and is perfectly straight. The sheer begins at these points fore and aft, raising the stem and stern a few inches above the waist. The boat is sharp at both ends, which are decked over to the waist, where the walking board begins and runs the whole length of the waist. The walking board is about fourteen inches wide, combings two by four inches are secured to the inner side to give it strength and increase the free board.

'The steering oar is the novelty of the boat, hewn from a pine tree twenty feet long and large enough to make a blade twelve inches wide and three or four feet long. The pivotal point is about eleven feet from the end of the blade, the stock is so arched from this point that when the boat is loaded the handle of the oar will be three feet above the deck. At this pivotal point a slotted mortise is made to receive an inch and a half iron pin driven into the head of the stern post on which to hang the oar. The oar is now put in place, dressed and thinned until it is in balance, so that it will work easily in all directions necessary.

'The principal propelling power is a socket pole, with a good strong man at the other end of it. The pole is made from the best and toughest white ash, fifteen feet long, one and a quarter inches at its longest part and tapering to one and one-half inches at the top on which to place a button to ease the pressure on the shoulder. The socket is of iron, armed with a square steel point, well tempered and kept sharp.

'The ordinary oar is seldom used, though one for each man is provided in case of need. A mast and sail and oil cloths are a part of the outfit besides a heavy block and tackle and a long tow line. Thus equipped, the boat was a complete revelation at the time of its introduction on the Fox River.

'The first boat that father built he had much trouble and expense in securing the right kind of lumber. It required plank from twenty to thirty feet long, both pine and oak. His mill was not yet arranged to saw such long lumber, so he resorted to the whipsaw.The timber was cut the proper length, hewn on two sides and by the use of two men and a whip saw made into lumber. As the demand for boats increased he soon remedied this trouble. He built not only for his own use but for other parties: several for the American Fur Company, Daniel Whitney, and others. It soon grew into a large business and gave employment to many men and continued until the improvement of the Fox River commenced. As with the French bateau the Durham boat had to give way to something better, so the changing world rolls on. The model of this boat is nearly perfect, the lines are easy both to enter and leave the water and to carry a great load with a light draft.

'The French trader, with his bateau with a crew of ten or twelve men, drawing over two feet of water, propelled with oars or small hand poles, stopping

every three miles to smoke their pipes and rest, looked on this boat with doubting eyes. "It was too big," "Cannot get her over the rapids," "takes too many men," "costs too much," and many other reasons why.

'That long oar perched upon the stern gave them much trouble and anxiety. "Oh you will soon take that thing off the stern and put two or more Frenchmen with their small handy poles there to steer your boat." It was knowledge perfected by experience, against ignorance and prejudice. The prophets failed. The Durham boat won the prize and kept it until the river was improved and the steamboat took its place.'[5]

After the Durham Boat had become well established a development local to Wisconsin apparently took place. 'The open uncovered space between the forward and after decks was housed with a strong but light frame covered with a double course of half inch pine boards securely nailed and painted, the sides enclosed with adjustable shutters of the same materials making a dry comfortable cabin for either freight or passengers.'[6]

The descripiton of the boat and its method of propulsion both show it was the exact counterpart of the craft originally built on the Delaware River. The whole story is authenticated to such a degree that there can be no doubt as to the means whereby the Durham Boat migrated from its home on the Delaware to Wisconsin. M. V. BREWINGTON

The Schooner 'Rebecca R. Douglas'

On 1 January 1943, the three-masted schooner *Rebecca R. Douglas* of Calais, Maine, was sold to the Douglas Navigation Corporation of New York for $20,000. This sale brings to a close a long chapter in the maritime history of the state of Maine. Except for a few two-masters, freighting in the Penobscot Bay, no coastwise schooner is now owned or operated in the state, a marked contrast to conditions fifty, or even only thirty, years ago when hundreds of vessels, large and small, plied her waters.

It is highly fitting, therefore, that the last Maine coaster should have been a real old-timer, a survivor from the golden age of sail. Probably the most interesting sailing vessel recently operated on the Atlantic coast, the *Douglas* was noteworthy both for her age—forty-nine years—and for the details of her construction. She was launched in 1894 by Kelley, Spear & Company of Bath, Maine; her measurements were 138.8 x 33.9 x 9.5 feet and her tonnage was 475 gross, 399 net. Built with oak frames and hard pine planking, she was in remarkably good condition for her age. A thorough survey held 28 November 1942, in anticipation of the sale, revealed slight damage to her center-board by worms, some evidence of dry rot around her stern and the need for overhauling her decks, particularly the waterways. Otherwise, she was pronounced completely fit and seaworthy. In addition to the quality of her timbers, two other features gave unusual strength to her hull, first, the fact that she was a center-board vessel and second, the decking over of what would normally have been her well deck. While there is always a certain amount of leakage connected with a center-board, the timbers of the box give much added rigidity to the hull. The decking over of the vessel was done early in her career to protect deck cargoes of kiln-dried lumber. In effect, this made her a two-decked ship with added resistance to hogging. Fortunately, the change was effected without spoiling her lines and, since the new deck was flush with the rail, she did not give the

[5] John Wallace Arndt, *Early History of Green Bay and Fox River Valley* (De Pere, Wisconsin, 1894).

[6] Wisconsin Historical Society, *Proceedings*, Pioneers and Durham Boats on Fox River (Madison, Wisconsin, 1913), 187-189.

impression of being higher amidships than at the ends.

For some years, the *Douglas* was operated out of Philadelphia, her relatively light draft being useful in negotiating the shoal waters of Chesapeake Bay and Pamlico Sound where she was sent for lumber cargoes. During the 1920's, she was operated in coastwise trade between New York and New England ports by the C. A. & B. F. Small Corporation of New York. As time went on, however, her condition deteriorated and, the owners not caring to spend what was necessary for repairs, she was laid up at Machiasport about 1932.

In 1937, while swinging forlornly at anchor, she came under the keen eye of Captain Burtis M. Wasson, a veteran of fifty years' experience on the coast. Captain Wasson had just sold the worn-out three-master *Henry H. Chamberlain* to Canadian buyers,[1] and the Smalls had similarly disposed of the schooner *Leona & Marion*,[2] commanded by the Captain's eldest son, Alvin. Not desiring to remain permanently on the beach and recognizing the intrinsic worth of the *Douglas*, Captain Wasson acquired the major share of the vessel from her former owners. With a crew consisting of Alvin as mate and three other sons, Harold, James and Paul, he set out to re-enter the *Douglas* in coastwise trade, gradually improving and refitting her as time and funds permitted.

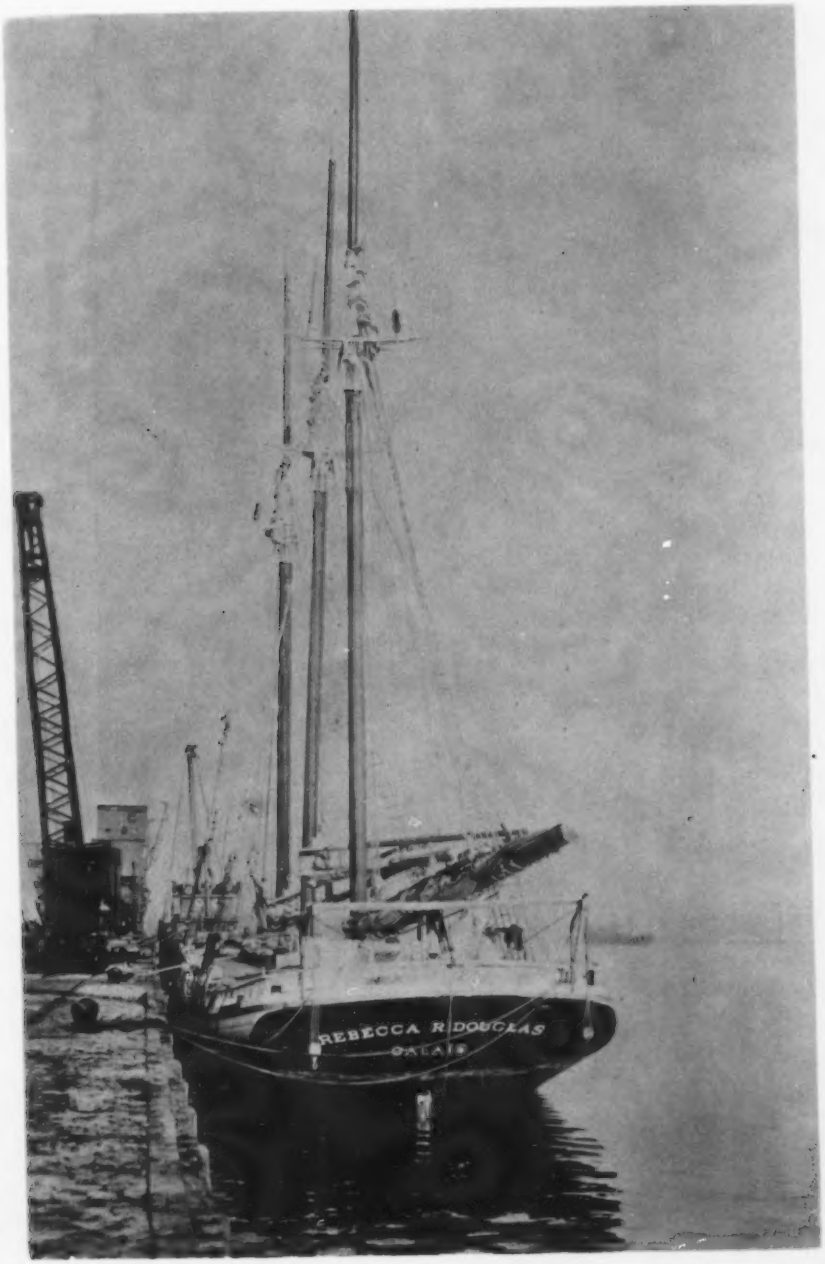
From the start, the old schooner proved a successful venture and was soon in tip-top shape. On 27 June 1939, however, she experienced that fate which seems to have been reserved for almost all the remaining coasters, at one time or another. Bound light from Jonesport, Maine, for Port Reading, New Jersey, she was proceeding at fair speed off Fire Island Lightship when she collided with the steamer *David McKelvy*, outward bound from New York. Since the night was clear, this accident appears to be another case in which a steamer misjudged the speed of a sailing vessel and the schooner, on the other hand, carried on too long before yielding her right of way. The *Douglas* lost her bowsprit and jib-boom and sustained other severe deck damage, but was able to proceed to her destination, where she was repaired. An idea of the materials which went into her construction may be gained from the fact that no single piece of wood could be found to replace her bowsprit. Instead, four 12 x 12 inch timbers were bolted together to form a composite spar.

After the accident, with the return of good fortune, the *Douglas* completed many trips, suffering no more than ordinary wear and tear. Good fortune for a sailing vessel, however, is not entirely a matter of chance. Much depends upon the judgment and care with which she is handled. The Wassons were particularly careful in their navigation and seamanship, for they knew that if they lost the *Douglas*, there would be no other vessel into which they could step. Accordingly, they did not hesitate to take

[1] The 3-masted schooner *Henry H. Chamberlain* was built in 1891 by F. S. Bowker of Phippsburg, Maine. Her tonnage was 246 gross, 205 net and her measurements 122.3 x 30.6 x 8.4. Owned by Captain Wasson, she was sold to Canadian buyers in 1937. In a heavy storm, 15 November 1937, she was wrecked and became a total loss at Dover, Nova Scotia.

[2] The 3-masted schooner *Leona & Marion* was built in 1920 by the Job Shipbuilding Co. of Machias, Maine. Her tonnage was 313 gross, 263 net and her measurements 134.0 x 28.0 x 9.4. She was a two-decked vessel having been designed originally to carry salted fish from fishing ports to the major markets. For many years, she was owned and operated by the C. A. & B. F. Small Corporation of New York, but was sold on 20 November 1937 to the Mulark Shipping Co., Ltd., Halifax, Nova Scotia.

On 23 January 1938, she sailed from Turk's Island, British West Indies, with three hundred tons of rock salt, bound for Halifax. When approaching the New England coast, she encountered a gale which partially dismasted her. Owing to the severity of the storm, the wreckage could not be cleared away and the drag of broken spars and tangled rigging in the heavy seas strained the hull and opened up her seams. She was abandoned and set afire 6 February, her crew being removed by the steamer *Harry F. Sinclair, Jr.*



Schooner *Rebecca R. Douglas* at Providence, R. I., 1 October 1938

Photograph by Robert H. I. Goddard, Jr.

Steamboat *Searchlight* aground in Colorado River, near Imperial Valley

Reproduced from a photograph in The National Archives, Bureau of Reclamation Files, 1921

For an account of Colorado River steamboats, see THE AMERICAN NEPTUNE, I (1941), 255-274

shelter in good time, when a storm appeared to be brewing or when fogs and headwinds made it unsafe to negotiate difficult passages. One entry in her log shows that on 20 May 1940, when bound West, she arrived off Pollock Rip in a thick fog with a strong SSW wind. Without hesitation, she dropped anchor off Nauset Light and waited out the fog. The need for constant care and watchfulness is well illustrated by her trip from Vineyard Haven to Lubec, Maine, in November, 1940. Sensing that his favourable wind would hold, Captain Wasson elected to run straight across from Pollock Rip to Matinicus. The sea, however, was extremely rough and, weakened by the constant motion of the vessel, the spanker-boom strap let go.[3] The wind forced the boom against the shrouds, breaking it. Slatting in the rough sea, the broken pieces thrashed about the deck, finally going down through the cabin skylight. Shortly after this mishap, the *Douglas* made one of her longest passages, taking thirty-one days from South Amboy, New Jersey, to Jonesport. On this trip, she lay nineteen days in Vineyard Haven waiting for winter storms to abate. She tried it once, going out through Pollock Rip Slue and up Cape Cod as far as Highland Light, but the wind was ahead and the sea rough, so she turned back to await a better chance.

Conservative operation, however, did not prevent the *Douglas* from turning in some very creditable performances. Take, for example, her time of two days, seventeen hours from Sandy Hook to Bass Harbor, Maine, in October 1941. Again, in October 1939 she ran from City Island, New York, to Southwest Harbor, Maine, in eight days. While this does not seem to be a particularly fast trip, her actual sailing time was only about two days, eleven hours. She went from City Island to Vineyard Haven in one day. Then, on a splendid, eleven-hour run from the Vineyard to Gloucester, she averaged ten miles an hour – pretty good for a heavily laden, forty-five-year-old coaster. A one-day sail from Gloucester to Southwest Harbor completed the trip.

In February 1941, Alvin Wasson, mate, left the ship to take command of the schooner *Lucy Evelyn* and was replaced by Harold, Captain Wasson's second son. Early in June, owing to illness, Captain Wasson was forced to stay ashore and Harold succeeded to the command. At the close of the 1941 season, Harold took a job ashore and in 1942, the stout old vessel was again commanded by Captain Burtis Wasson. As mate, he had Alvin, who left *Lucy Evelyn* to help him in the ever more difficult work of navigating under war-time conditions.

By March 1942, when the *Douglas* began her season, the dangers of destruction both by submarine attack and by blacked-out convoys had become grim realities for the few remaining coasters. Added to the chance of errors owing to the restricted operation of navigating aids, these perils greatly increased the time required for coastwise voyages. Soon, therefore, the Wassons came to the conclusion – and I feel sure their decision was made with regret – that they would be better off to sell their ship at the current high rates for tonnage than to suffer loss from prolonged trips and the increasingly high repair charges to be expected from so old a vessel. Accordingly, when the November survey brought forth an attractive offer, they were satisfied to sell the *Douglas* to new owners who planned to use her in trade to Carribean ports.

On 19 January 1943, when lying in the Machias River, she received orders to proceed to Searsport to load a part cargo of paper for Baranquilla, Colombia. Her departure from home waters

[3] While the technical name for the third mast of a three-masted schooner is 'mizzen,' present-day coastwise parlance calls it 'spanker.'

For an account of Colorado River steamboats, see THE AMERICAN NEPTUNE, I (1941), 255-274

was delayed, however, by the freezing of the river. It seemed as though the spirit of Maine's sea-faring tradition was trying to prevent the turning of history's page. She remained at Machiasport, frozen solid, until 10 February, when an ice-breaker opened a channel for her. Leaving Machias Bay astern, she put in at Winter Harbor, 11 February, but again became frozen in, this time for five days. On 18 February, she anchored at the entrance to East Penobscot Bay because of ice, but, shortly afterward, was assisted to Searsport by an ice-breaker. Sailing on 12 March, she made a leisurely, seventeen-day trip down the coast, paying farewell calls to old, familiar way-ports — Rockland, Boothbay Harbor, Gloucester and Vineyard Haven — and arriving at Brooklyn, New York, 29 March to complete loading.

After taking aboard the balance of her cargo and making final preparations for the long run to South America, the *Douglas* sailed from New York 1 May under the command of Captain Walter Wrightson of Washington. Shortly after sailing, she ran into heavy weather which became worse as she worked her way down the New Jersey shore. On 3 May, she was abandoned off Cape May in a sinking condition, Captain Wrightson and all but two of his crew being lost when their life-boat capsized in the heavy seas.

With the *Douglas* gone, it seems unlikely that New England waters will know her kind again. It is difficult to imagine how Maine will look without, somewhere along her coast, the dark sails of a three-master rising above the horizon, or the sweep of a clipper bow outlined against a rocky shore. From this brief description, therefore, I trust that the reader will gain some appreciation of what a splendid vessel the *Douglas* was and that he can retain in his mind's eye a picture of her beating into some rock-girt bay. The rolling shore line is a dark, rich green and the water sparkles in the bright sun. As she forges ahead, rigging and sails taut in the fresh breeze, the mate stands by the centerboard box watching for the rod to jump, an indication that the board is beginning to touch bottom and the helmsman had better put her about. The Wassons used to say that this was the way they navigated in their home waters, but I feel, rather, that this story was their way of expressing the pride and joy which they took in the smart, yet careful, operation of a noble heritage from the days of sail.

The following table summarizes, in brief form, the voyages of the last three and one half years. Frequent reference is made to arrival at, or departure from, City Island. This is not a final destination but merely the point, in Long Island Sound, at which navigation under sail ceases. At City Island, a tug must be picked up, for sailing vessels are required to be towed through Hell Gate and New York Harbor. Unless otherwise indicated, therefore, the reader will understand that the destination was some New Jersey port and that it was reached from City Island in tow.

The way-ports visited during the course of a trip are not always noted, but where they are, all such ports are mentioned.

Frequent reference is made to the *Douglas* anchoring 'on the Shoals.' This means the general area between the Pollock Rip Slue and the Cross Rip Lightship in Nantucket Sound. When the wind is light and the tide adverse, schooners traversing these dangerous waters anchor near Tuckernuck, Handkerchief or Great Round Shoals in such a way as to shield themselves as much as possible from the strongest currents and any sea which may be running. Generally, conditions change on the turn of the tide and vessels are able to get under weigh.

ROBERT H. I. GODDARD, JR.

Arrived	*Date*	*Days*	*From*	*Cargo*	*Remarks*
Seal Harbor, Me.	20 July 1939	5	Port Reading, N. J.	Coal	
Lubec, Me.	29 July 1939	2	Seal Harbor	Light	To load.
City Island, N. Y.	27 August 1939	16	Lubec	Scrap Tin	Head winds and fog.
North Haven, Me.	11 September 1939	5	City Island	Coal	Anchored once—on the shoals.
Lubec	18 September 1939	1	North Haven	Light	To load.
City Island	8 October 1939	12	Lubec	Scrap Tin	Via Rockland, Boothbay and Tarpaulin Cove.
Southwest Harbor, Me.	24 October 1939	8	City Island	Coal	
City Island	19 November 1939	16	Southwest Harbor	Light	In company with schooners *Minas Prince* and *Lucy Evelyn*.
Southwest Harbor	December 1939	6	Port Reading	Coal	Tied up for winter at Machiasport, Me.
City Island	18 April 1940	15	Machias	Lumber	Discharged at Brooklyn.
Seal Harbor	8 May 1940	4	Sandy Hook	Coal	Part of cargo discharged at Islesford, Me.
South Amboy, N. J.	27 May 1940	9	Southwest Harbor	Light	Anchored off Nauset Light 20 May, thick fog, wind SSW.
Lubec	20 June 1940	16	South Amboy	Coal	Via Vineyard Haven, 6 June.
Carteret, N. J.	12 July 1940	12	Lubec	Scrap Tin	Via the Shoals and Menemsha Bight.
Lubec	29 July 1940	11	South Amboy	Coal	Via Vineyard Haven, 24 July.
Machiasport	5 August 1940	1	Lubec	Light	To load.
Boston, Mass.	22 August 1940	2	Machiasport	Lumber	
Addison, Me.	11 September 1940	4	Boston	Light	To load.
South Amboy	6 October 1940	10	South Addison, Me.	Scrap Iron	16-20 October, hauled out for caulking and painting.
Lubec	5 November 1940	10	Sandy Hook	Coal	In company with schooners *Lucy Evelyn* and *Frederick P. Elkin*.
Machias	12 November 1940	3	Lubec	Light	To load.
Boston	4 December 1940	3	Machiasport	Lumber	Discharged at Quincy.
South Amboy	25 December 1940	4	Boston	Light	Via the Shoals.
Jonesport, Me.	30 January 1941	31	South Amboy	Coal	Lay 19 days in Vineyard Haven waiting for fair wind.
Machiasport	11 February 1941	1	Jonesport	Light	Tied up until 17 March.
South Amboy	28 March 1941	7	Machiasport	Light	Via the Shoals and Vineyard Haven.
Lubec	11 April 1941	13	South Amboy	Coal	Via Vineyard Haven and Gloucester.
Hoboken, N. J.	27 April 1941	5	Lubec	Scrap Tin	Via Portland, 25 April.
Winter Harbor, Me.	8 May 1941	4	City Island	Coal	Via the Shoals, 6 May.
City Island	21 May 1941	6	Winter Harbor	Light	Via the Shoals, 17 May.

Arrived	*Date*	*Days*	*From*	*Cargo*	*Remarks*
Jonesport	29 May 1941	5	City Island	Coal	
Lubec	7 June 1941	1	Jonesport	Light	Capt. Burtis Wasson taken ill and Mate Harold Wasson took over command.
New York	24 June 1941	11	Lubec	Scrap Tin	Via Vineyard Haven.
Islesford	July 1941		New York	Coal	
South Amboy	4 August 1941	15	Islesford	Light	Via the Shoals and Vineyard Haven.
Lubec	13 August 1941	6	South Amboy	Coal	Via Vineyard Haven, 11 August.
Carteret	3 September 1941	*c.* 10	Lubec	Scrap Tin	
Lubec	September 1941		South Amboy	Coal	Passed Nobska, 12 September.
Carteret	13 October 1941	12	Lubec	Scrap Tin	Via Bass Harbor, Boothbay and Portsmouth.
Bass Harbor	26 October 1941	2 days 17 hrs.	Sandy Hook	Coal	Plenty of wind on this trip.
Machiasport	November 1941		Bass Harbor	Light	To repair deck and rails of vessel. Then lay up for the winter.
New York	29 March 1942	4	Machiasport	Light	To load at Hoboken.
Jonesport	19 April 1942	8	City Island	Coal	Via Vineyard Haven and Boothbay; in company with schooners *Lucy Evelyn* and *Lillian E. Kerr.*
City Island	9 May 1942	12	Jonesport	Light	Via Southwest Harbor, 30 April.
Islesford	30 May 1942	11	City Island	Coal	Via New Haven, 27th.
Northeast Harbor	June 1942		Islesford	Coal	One half cargo discharged here. 6-12 June cleaning bottom.
Southwest Harbor	13 June 1942		Northeast Harbor	Light	Head winds and foggy.
City Island	20 June 1942	4	Southwest Harbor	Light	Via Niantic Bay, 19th.
North Haven	4 July 1942	8	City Island	Coal	Via Niantic Bay, 30 June.
City Island	20 July 1942	5	North Haven	Light	To load at Hoboken.
Dark Harbor, Me.	31 July 1942	8	City Island	Coal	Via Rockland, 31st.
City Island	25 August 1942	17	Dark Harbor	Light	27 August-5 September in drydock at Perth Amboy.
Lubec	24 September 1942	14	City Island	Coal	Via New Haven, 13th, Southwest Harbor, 24th.
City Island	22 October 1942	12	Lubec	Scrap Tin	470 tons cargo. Via Machiasport, Rockland and Boothbay Harbor.
Lubec	17 November 1942	14	City Island	Coal	Via New Haven and Vineyard Haven.
Machiasport	27 November 1942	12 hrs.	Lubec	Light	To survey vessel.
Searsport, Me.	19 February 1943	9	Machiasport	Light	To load 300 tons paper.
Brooklyn	29 March 1943	17	Searsport	Paper	To load balance of cargo for South America.

The Topsail Schooner 'Americana'

I COMMANDED the *Americana*[1] for three years on voyages from Puget Sound ports to Australian ports. During that period she was rigged with two topsail yards on the foremast, and also a yard for the square sail, which was made in two sections. She also had the regulation fore-sail with gaff, like all other fore-and-aft vessels.

Although just an ordinary sailer, she handled more easily than a barkentine, as there were fewer braces to man when tacking ship. When lumber laden she went along very nicely, was easy on the gear and could reel off 11 knots in fresh trade winds; but was a veritable brute when deep laden with coal: very destructive and hard on the gear with her violent rolling and jerky movements of gaffs. Patent sheaves in the peak halyard block lasted no time at all. I had to replace these with the common metaline sheave, which made harder work to hoist up the sail.

When she could not break these she took it out on the gaffs by breaking them. I lost all three gaffs on the last voyage, with no material at hand to fish them and make them serviceable again, but I resorted to another method to set the fore-and-aft sails, original with myself, and I think the first time ever used. I seized the head roping of the sail (usually made of tarred manila) to a good piece of donkey fall wire, and replaced the wooden throat halyard hoops with stout wire hoops. I then secured good lignum vitae to the cross-trees, through which I rove the donkey fall which was to be my peak halyards. The sail naturally would set rather flat, but it served the purpose without the gaffs. I even set the gaff-topsails above.

I covered some thousand miles under my jury rig, but in the doldrums I met with disaster and lost the fore-topmast in a heavy squall that caught her aback. It happened in the night; with every roll she would put her sheer poles under water, decks constantly flooded; but with all our misfortunes we finally managed to reach San Francisco after a passage of eighty-four days.

I took her up to Knappton to again load lumber for Australia. While putting on the deck load the last gaff on the ship — the cargo gaff — carried away, barely missing me as I was passing. That was too much for me. I said the ship was hoodooed, so I repaired to my cabin and sent in my resignation to Mr. James Tyson, the managing owner of the Charles Nelson Co., requesting him to send up another master.

The ship nor any of the crew were ever heard from again after she sailed on the next voyage.

CAPTAIN NICHOLAS WAGNER

[1] See John Lyman, 'Four-Masted Topsail Schooners,' THE AMERICAN NEPTUNE, II (1942), 326-327.

The Later History of American Sailing-Ships 'Sold Foreign'

PART V

Vessels built at New York

Gladiator. Bark, 716 tons, built 1835 at New York.
Sold to Norway 1865 renamed *Yarra Yarra* [HVTM of Arendal], rebuilt 1874. Lost May 1889.

Ohio. Bark, 853 tons, built 1840 at New York.
Sold to Germany 1875 renamed *Helios* [of Stralsund]. Stranded 16 November 1883 near Harbour Point lighthouse, Newfoundland, on voyage Caraquette, New Brunswick-Glasgow, lumber, etc.

Liberty. Bark, 576 tons, built 1842 at New York.
Sold to Canada 1864 [VHMS of Montreal]. Struck ice 13 June 1875 and foundered in 49° 50′ N, 59° 11′ W, on voyage Quebec-Dundee, timber.

Queen of the West. Ship, 1,433 tons, built 1843 at New York by Brown and Bell.
Sold to Great Britain *c.* 1857 [MLGB of Liverpool]. Dismantled 1878.

Zurich. Ship, 817 tons, built 1844 at New York.
Sold to Great Britain *c.* 1863 [VMJK of Ayr]. Stranded 13 August 1879 on Haisboro Sands, Norfolk, on voyage South Shields to Spezzia, 15 crew.

Havre. Ship, 811 tons, built 1845 at New York by W. H. Webb.
Sold to Norway 1876 [HVQG of Arendal] Broken up 1908.

Sequine. Brigantine, 149 tons, built 1845 at New York.
Sold British 1864 renamed *Onachita* later *Ouachita* [VRBD of Turk's Island, later of Maryport]. Dismantled 1911.

Bavaria. Ship 1,160 tons, built 1846 at New York.
Sold to Canada *c.* 1874 renamed *Charles H. Oulton* [of St. John, New Brunswick]. Afloat 1891 probably hulk.

Margaret Evans. Ship, 862 tons, built 1846 in New York.
Sold to Canada 1864 [VRHG of Montreal]. Stranded 31 October 1881 Cape Gabarus, C. B. on voyage Shediac, New Brunswick-Liverpool, deals.

Maid of Orleans. Ship, 897 tons, built 1848 at New York.
Sold to Great Britain 1865 [TSFV of Ardrossan]. Burnt 1 January 1880 in 40° N, 54° W with loss of all hands, on voyage Philadelphia-Havre, petroleum.

West Point. Ship, 1,256 tons, built 1847 at New York (as steamer) by Westervelt and Mackay.
Sold to Great Britain 1864 renamed *Bayswater* [VWDJ of Liverpool]. Sailed Greenock 5 February 1864 with 434 emigrants for Queensland. Abandoned leaky 29 November 1876 in 20° 14′ N, 34° 21′ W, wind force 9. Voyage Lobos-de-Tierra to Bristol, 1,250 tons guano. Had put into Valparaiso leaky and repaired. Sprang a leak again 18 October which increased, necessitating abandonment.

Albert Gallatin. Ship, 1,430 tons, built 1849 at New York by Wm. H. Webb.
Sold to Great Britain *c.* 1872 [of Liverpool]. Abandoned 2 August 1875 in 56° S, 67° W, lost rudder and became unmanageable. Bound Antwerp to Callao in ballast, 25 crew, 16 lost.

Constitution. Ship, 1,269 tons, built 1850 at New York.
Sold to Great Britain 1860 [LNFS of Liverpool]. Sold to Norway 1879. Stranded 23 October 1880 in St. Lawrence River, wind force 10, loading Betsia nuts.

N. B. Palmer. Ship, 1,490 tons, built 1850 at New York by A. Westervelt.
Sold to Norway 1873 [HWNS of Arendal]. Abandoned 21 January 1892 in 45° N, 43° W.

Rhine. Bark, 1,178 tons, built 1850 at New York by J. Westervelt.
Sold to Norway 1886 [of Kragerö]. Condemned February 1889.

Challenge. Ship, 1,365 tons, built 1851 at New York by Wm. H. Webb.
Sold to Great Britain 1862 renamed *Golden City* [QLKN of Liverpool]. In 1867 made passage Liverpool to Bombay in 71 days. On 23 July 1875 had decks swept and lost four men in Indian Ocean on voyage South Shields-Anjer, coal. Lost off French coast (Abervache) 7 February 1877 in 49° 18′ N, 6° 44′ W, on voyage South Shields-Genoa, 1,590 tons of coal, 26 crew. (An oil painting of this ship hangs in the Chairman's Room at Lloyds, presented by Mr. P. W. Wilson of Ohio, a son of the last owner of the ship.)

Comet. Ship, 1,361 tons, built 1851 at New York by Wm. H. Webb.
Sold to Great Britain 1864 renamed *Fiery Star* [VNKF of Liverpool]. Sailed Brisbane 1 April 1865 for London, caught fire 12 days later. On 20 April mate and 17 of crew were taken off after fighting the fire for 21 days.

Simoon. Ship, 1,161 tons, built 1852 at New York by Jabez Williams.
Sold to Great Britain 1863 [VPGC of Liverpool]. Sold to Norway 1873 renamed *Hövding* [HCSN of Moss]. Broken up 1908.

Antelope. Ship, 1,055 tons, built 1852 at New York by Perine, Patterson & Stack.
Sold to South Africa 1863 [SCHR of Cape Town]. Sold to Holland 1875 renamed *H. W. M.* [of Purmerend], later renamed *Antilope* [NFHW of Purmerend]. Not in 1897 Register.

Flyaway. Ship, 1,276 tons, built 1853 at New York by Wm. H. Webb.
Sold to Spain *c.* 1858 renamed *Concepcion*. Sold to Great Britain 1876 renamed *Bothalwood* [LVTJ of Newcastle]. Stranded 20 January 1881 St. Owens Bay, Jersey, Canary Islands, on voyage Carthagena-Leith, esparto grass, 18 crew.

Robert L. Lane. Ship, 1,135 tons, built 1853 at New York by Wm. H. Webb.
Sold to Great Britain 1864 [WFQJ of Liverpool]. Hulked 1883.

Young America. Ship, 1,380 tons, built 1853, at New York by Wm. H. Webb.
Put into Rio Janeiro August 1883 for repairs on voyage San Francisco to New York. Sold in New York for $13,500 to Austria, renamed *Miroslav* [JMRQ of Buccari]. Missing since 17 February 1886 bound from Delaware Breakwater to Fiume.

Adelaide. Ship, 1,831 tons, built 1854 at New York by A. C. Bell.
Sold to Great Britain 1864 [VWDH of Liverpool]. Sprang a leak 20 September 1875 in Indian Ocean, wind NW, force 10, on voyage Rangoon to Liverpool with rice and condemned.

City of Brooklyn. Ship 1,539 tons, built 1854 at Brooklyn, New York (rebuilt 1867).
Sold to Australia prev. 1890 renamed *Mount Macedon* [of Melbourne]. Dismantled 1890. In 1895 renamed *Doctor Singleton*. Broken up 1903.

John H. Ryerson. Ship, 1,039 tons, built 1854 at New York.
Sold to Great Britain *c.* 1874 renamed *Record* [of Liverpool]. Dismantled 1878.

Thomas Holcombe. Bark, 458 tons, built 1855 at New York.
Sold to France renamed *Jeanne*. Sold to Russia 1877 renamed *Cito* [of Liban] and to Holland *c.* 1885, renamed *Bertha* [NGWB of O. Pakela]. Abandoned at sea 1895.

City of Mobile. Ship, 1,797 tons, built 1855 at New York by Parine.
Sold to Great Britain 1864 [VNTC of Liverpool]. Leaking badly 12 November 1883 in 33° S, 79° W, put into Varparaiso 1884, condemned and hulked there.

Black Hawk. Ship, 1,175 tons, built 1856 at New York by Wm. H. Webb.
Sold to Germany 1886 [QDLW of Bremen]. Sold to Norway 1889 of Christiania. On fire February 1891 and condemned.

Three Brothers ex-*Vanderbilt* (steamer). Ship, 2,936 tons, built 1856 at New York by J. Simonson.
Sold to Great Britain 1880 [of Liverpool]. Hulk at Gibraltar 1888. Sold 1928 for £450 to Spanish ship breakers.

Glimpse. Bark, 335 tons, built 1856 at New York.
Sold to New Zealand *c.* 1876 [WLHM of Auckland]. Abandoned 21 October 1881, 240 miles NE by E Cape Howe, Victoria, Australia, wind force 10. On voyage Burrard Inlet, British Columbia-Melbourne.

Charles H. Marshall. Ship, 1,688 tons, built 1869 at New York by Wm. H. Webb.
Sold to Norway 1887 renamed *Souverain* [JHQW of Stavanger]. Caught fire 20 March 1891 and scuttled in Penarth Dock, South Wales, loading coal. Sold and hulked.

Snowdon. Bark, 324 tons, built 1869 at New York.
Sold to Great Britain prev. 1874 [MNLK of London]. Hulked about 1880, still afloat 1890.

Cleopatra. Ship, 1,233 tons, built 1867 at Brooklyn, New York, by F. H. Stack.
Sold to Germany 1876 [QCWJ of Bremerhaven]. Burnt at sea 1894.

Arctic. Ship, 1,252 tons, built 1850 at Williamsburg, New York. Sold to Great Britain 1864 renamed *Stratford* [WFSH of Liverpool]. Sold to Norway 1876 [HVQS of Arendal]. Out of Register 1906 presumably broken up. (Note age.)

Tornado. Ship, 1,720 tons, built 1852 at Williamsburg, New York, by J. Williams.
Sold to Great Britain 1863 [VDHK of Liverpool]. Burnt 24 February 1878 at New Orleans, loading cotton for London.

Ellwood Walter. Ship, 1,072 tons, built 1855 at Williamsburg, New York.
Sold to Great Britain 1865 renamed *John Gladstone* [WGJL of London]. Foundered 17 February 1878 in 48° 32′ N, 24° 27′ W, wind force 9, on voyage Antwerp-Delaware. Leaky and pumps choked by sand ballast.

Vessels built at Philadelphia, Pennsylvania

Truelove. Bark, 285 tons, built 1764 at Philadelphia.
Captured as a privateer by British in 1780 and sold to Hull. Made her first visit in 1806 to Davis Strait as whaler and in 1868 was the last whaler to sail from Hull. Made in all 72 whaling voyages and captured 500 whales. In 1870 her commander reported that she was still 'handy as a cutter, safe as a lifeboat, tight as a bottle and ready as of old to do her duty if ever she be again called upon.' Visited Philadelphia 1873 (a flag, the Stars and Stripes, then presented to her is now in the Museum at Hull). Sold to ship breakers 1887.

Saranak. Bark, 838 tons, built 1844 at Philadelphia.
Sold to Norway 1890 [JVMC of Arendal]. Abandoned December 1892.

Alexander McNeil. Bark, 650 tons, built 1860 at Philadelphia.
Sold to Great Britain 1874 renamed *Kashgar* [WTBN of Liverpool]. Burnt 6 May 1876, 14 miles SW of Goa Light, on voyage Newcastle, New South Wales, to Bombay with 1,032 tons coal.

Esther. Bark, 443 tons, built 1858 Wilmington, Delaware.
Sold British 1865 renamed *Queen of the Seas* [TCVL of Hongkong]. Sold to Spain 1884 renamed *Dominga* [HKJS of Manila] reverting later to American flag.

DANIEL R. BOLT

Additional Notes on Later History of American Sailing-Ships 'Sold Foreign'

The recent notes by Mr. Daniel R. Bolt are of great interest and value, both in showing in general that there was often plenty of useful service left in a vessel after American shipowners were no longer able to run her, and in amplifying the histories of individual vessels.

The early classification society registers were somewhat careless in recording changes of names, so that in a few cases the names under which vessels were known on this side of the Atlantic do not appear in Mr. Bolt's lists. Such additions as I have been able to make, together with other pertinent notes, follow. Numbers in parentheses refer to volume and page of The American Neptune in which Mr. Bolt's account is to be found.

Leone (II, 245) was originally named *Pride of America.* She was sold to British owners in March 1854.

Julia Farmer (II, 245) was originally named *Martha Whitmore.*

Tabor (II, 334) came back under United States registry as a schooner-barge, being so owned in Pensacola in 1900.

Johann Ludwig (II, 334) had originally been named *Xenia.* She also was owned at Pensacola in 1900, as the schooner-barge *Ludwig.*

Jacob Leoy or *Levy* (III, 63) was originally named *Tangier.*

Garibaldi (III, 63) was originally the *Meguntícook.*

Nonpareil (III, 64) was not ex-*Fanny McHenry*. The latter was renamed *Sanspareil*.

Ernestine (III, 64) was originally *Ernestine Giddings*.

Good Hope (III, 64). Apparently here accounts to two ships have been telescoped into one. *Good Hope* was built at Medford, Massachusetts, by J. O. Curtis in 1855, sold to Brazil 1873 renamed *Frederick Hasselmann*, resold to Sweden renamed *Solide*, and lost near Quebec as stated. Then there was the ship *Isabella*, 1,005 tons, built at Wiscasset in 1855 and listed in 1882 as the Swedish *Solo* of Gothenburg.

Josepina Martine (III, 66) was *Josephine Martin* under American registry.

Adela S. Hills (III, 66) was built by Starratt as a three-masted schooner, and was rerigged a bark in April 1876.

Murello (III, 68) was named the *Hindostan* throughout her United States ownership.

George Gilroy (III, 69) is listed in American Lloyd's for 1882 as ex-*Somersetshire*.

J. F. Foster (III, 70) should be *J. T. Foster*.

Parthina (III, 70) should be *Parthenia*.

Harvester (III, 71) was bought in 1890 by San Francisco owners, was rigged down to a barge about 1914, and was refitted as a four-masted schooner in 1918. She left Vavau, Tonga, for San Francisco, 4 November 1920, and disappeared with her crew of ten.

Mary Bradford (III, 72) was listed in 1882 as *Catalina* ex-*Frank Austin*, owned in Bolivia by Frank Austin, owner and master.

C. E. Jayne (III, 72) was built as the *J. C. Kuhn*. She was bought by the U. S. Navy in July 1861, was renamed *Purveyor* in April 1866, and was sold out of the service in July 1869.

Vasco de Gama (III, 169) was originally named *Parliament*.

JOHN LYMAN

Wrecks of Civil War Blockade-runners

Readers of Arthur C. Wardle's recent article in The American Neptune, III (1943), 131-140, may be interested to know that the wrecks of some of the blockade-runners are still on the shore.

A trip to Fort Fisher from Wilmington, North Carolina, is easy if one has a car. The site of the fort is a deserted area of sand dunes and scrubby vegetation. On the water-front the ocean is making great inroads on the beach, and from the bank above the great charred beams project out over the high tide mark. At low tide the ocean uncovers a wide level sandy stretch, still dotted with pieces of iron rust, which were once the fragments of the iron shells which were hurled at the Fort by the Federal fleet.

A half mile northward along the beach, where Battery Gatlin once stood, a fishing pier has recently been built. At the outer end of the pier lies the remains of the blockade-runner *Modern Greece*, which was driven ashore on 27 June 1862 at 4 A.M. by the steamship *Cambridge*. The *Modern Greece* still serves a useful purpose, for it is around her hull, just awash at low tide, that the fish congregate.

Several miles further north along the shore, about a couple of hundred yards out from the beach, lies the blockade-runner *General Beauregard*, which was driven ashore by the blockading fleet on 11 December 1863. Her decks are still awash. That the hull still holds together speaks well for the metal of which it was made. The big main shaft of her paddle-wheels is still in place, with its great flat iron hub about five feet in diameter projecting above the surface of the tumbling waves.

Still further north along the shore I understand there is still another wreck of a blockade-runner which I have not seen.

AUGUSTUS H. FISKE

Admiral Sir Peter Parker's First Ship of the Line

The life of Admiral Sir Peter Parker (1721-1811), son of an admiral and father of another, has been written briefly by the eminent naval historian J. K. Laughton in the *Dictionary of National Biography*. Parker, later known as a patron of the young Nelson, is best known to Americans as the unfortunate officer in command of the British naval force which was bloodily repulsed at Fort Moultrie on 28 June 1776, when Sir Henry Clinton tried to take Charleston. On that day Parker lost a frigate, a flag, and two hundred men.

Parker was first promoted to command a line-of-battle ship during the insular command of 1759, when the British reduced Guadeloupe. He had previously commanded the *Woolwich* frigate. Of the promotion Laughton said,

> 'In 1757 the Woolwich went to the West Indies with Commodore John Moore . . . who in January 1759 moved Parker into the Bristol. In her he took part in the unsuccessful attack on Martinique and in the reduction of Guadeloupe.'[1]

Of those two sentences the clause 'In her he took part in the unsuccessful attack on Martinique . . .' is incorrect. While the force was at Martinique Parker remained in command of his frigate. He was not moved into the fifty-gun *Bristol* until after the attack on Martinique had been given up and a successful landing had been made on Guadeloupe.

The commander of the *Bristol* at Martinique was Lachlin Leslie, who left England in her in 1758 and was mentioned as her commander in the diary of a captain of Marines, who was an eye witness, on 13 January 1759[2] and again on 23 January.[3] He was also thus listed in the public press.[4] Since by 23 January the attack on Martinique had been abandoned and the force was operating off the shores of Guadeloupe, Parker was not master of the *Bristol* during the attack on Martinique.

Parker was moved into the *Bristol* on or after 30 January. Captain Tyrrel of the *Buckingham*, which had been on detached duty, rejoined the fleet on that date.[5] He was assigned to carry dispatches to England.[6] Leslie was moved into the *Buckingham*, and Parker into the *Bristol*. But it was not in time to take 'part in the unsuccessful attack on Martinique' in her.

MARSHALL SMELSER

[1] J. K. Laughton, 'Sir Peter Parker,' *Dictionary of National Biography*.

[2] Richard Gardiner, *Account of the expedition to the West Indies against Martinico, with the reduction of Guadeloupe &c.* 3d ed. (Birmingham, 1762), 5.

[3] Gardiner, 26-27.

[4] *The Gentleman's Magazine*, XXIX (1759), 142.

[5] Gardiner, 30.

[6] Gardiner, 36; Haldane to Newcastle, 30 January 1759, Newcastle papers, f. 392, Add. MSS. 32887, British Museum (Transcripts in the Library of Congress); *The Gentleman's Magazine*, XXIX (1759), 143.

The Last Voyage of the 'Star of Scotland'

The six-masted schooner *Star of Scotland*[7] left Aberdeen, Washington, with a full cargo of lumber for South Africa, 20 January 1942. Twenty days out she had to put into San Pedro for repairs, and sailing again made the run to Cape Town in one hundred twenty days. After lying in port for over four months she sailed again in ballast for Paranagua, Brazil, on 3 November. On the tenth day out she was sunk by shellfire from a German submarine. The chief mate was drowned in attempting to launch a life-boat. Captain Constantin Flink and the remaining fifteen of his crew reached the mainland of Angola near Santa Martha Light after eighteen days in the boat.

JOHN LYMAN

[7] John Lyman, 'The *Star of Scotland*, ex-*Kenilworth*,' The American Neptune, I (1941), 333-344.

Documents

Charles Ware, Sail-maker

Among the manuscripts in the Office of Naval Records and Library, Navy Department, is a large book bearing the shelf title 'Drawings of U. S. Ships, Guns, Etc. Made by Charles Ware at the Boston Navy Yard.' It contains twenty-five sheets averaging 18″ x 24″. On each sheet is a carefully executed pen, ink, and wash drawing. The list of the drawings is appended. As opportunities present themselves reproductions will be published in The American Neptune.

Very little is known of Charles Ware whose name is signed on each sheet. He appears first as a civilian sail-maker in the Boston Navy Yard on 9 January 1817 and disappears on 25 June 1831. It is known that a warrant sail-maker was appointed to his place in accordance with the then policy of the Navy Department to replace civilians by service personnel. Ware protested that he had held the position of sail-maker for fourteen years and that he was fully qualified for the job. The Secretary of the Navy replied that Ware could be warranted if he desired, but no warrant seems to have been issued.

At sometime during his years at the Navy Yard Ware made the drawings. The majority were evidently made in connection with his work although a few are concerned with equipment in no way associated with his trade. These drawings all seem to be copies of plans originally by other hands – two, numbered four and five are so marked. All of the drawings are beautifully done with far more detail than is usually found in plans of this type.

In addition to the plans in this book it is known that Ware drew a similar plan of the U. S. frigate *Constitution*, but its present whereabouts is unknown. Another plan believed to be his work is that of the schooner *Rio* in the Peabody Museum of Salem. If the readers of The American Neptune can supply any information about Charles Ware, or know of other examples of his work, it is hoped they will make use of these pages.

The two plans reproduced in this issue are of the U. S. ship *General Pike* (Plate 00) and the U. S. schooner *Lynx* (Plate 00). The *Pike*, 145 x 37 x 15, 28 guns was built at Sacketts Harbor from a design said to have been by Henry Eckford. She was launched 12 June 1813, and took part in the Battle of Lake Ontario. About 1821 she was considered unfit for repairs and shortly thereafter was sold.

The *Lynx* was built at the Navy Yard, Washington, in 1814. She served in Bainbridge's Mediterranean Squadron in 1815, examined the New England coast of the United States in 1817 and afterward cruised in the Gulf of Mexico on the pirate patrol. It is believed she foundered in a hurricane during the summer of 1821.

Drawings of U. S. Ships, Guns, etc., made by Charles Ware at the Boston Navy Yard, 1817 to 1831, Navy Commissioners Office.

1. Doxey's Propelling Machine.
2. Plans of the Frigate *United States* Decks.
3. Plan of Capstans for a 74.
4. A long 32 pdr Cannon and 42 pd Carronade mounted upon their Carriages. Copied by C. Ware
5. Profile of the Inboard Works of a Ship of the Line. Copied by C. Ware.
6. Spars of a 74 Gun Ship.
7. No. 3 Quantity of American Duck 74- sails. [Plans of certain sails]
8. No. 2 Quantity of American Duck 74- sails. [Plans of certain sails]
9. Plans of jibs and staysails

10. No. 1 quantity of American Duck 74- sails. [Plans of certain sails]
11. U.S. Ship of the Line. [Spars, rigging and outboard profile]
12. U.S. Ship of the Line. [Sail plan, rigging, and outboard profile]
13. U.S. Ship *Congress* [Sail plan, rigging, and outboard profile]
14. U.S. Ship *General Pike* [Sail plan, rigging and outboard profile]
15. Draft of the U.S. Brig *Chippawa* [Sail plan, rigging and outboard profile]
16. U.S. Brig *Spark* [Sail plan, rigging, and outboard profile]
17. U.S. Brig *Prometheus* [Sail plan, rigging and outboard profile]
18. U.S. Schooner *Alligator* [Sail plan, rigging and outboard profile]
19. U.S. Schooner *Lynx* [Sail plan, rigging and outboard profile]
20. Drafts of the Boats belonging to the United States Ship *Columbus* [Sail plans, rigging, and outboard profiles of gig, 4th, 3rd, 2nd, 1st cutters and launch]
21. Sails on the Foremast of the U.S. Ship *Independence* 74. [Plans of sails of the fore and mizzen masts]
22. Sails on the Mainmast of the U.S. Ship *Independence* 74. [Plans of the sails of the main mast and the spanker]
23. Draft of the U.S. Ship *Guerriere* Sails 1st Class [Plans of the sails on the fore, main, and mizzen masts]

23b. [Jibs and staysails of the *Guerriere*]

24. *Constitution's* Sails [Plans of all sails with an estimate of the canvass required for them]
25. Draft of the U.S. Ship *Congress* Sails. [Plans of all sails]
26. Draft U.S.S. *Macedonian* Sails 2d Class Frigate [Plans of all sails]

An Early Philadelphia Steamboat?

[From Master Carpenter's and Surveyor's Certificates, Philadelphia Custom House]

I Joseph Taylow do hereby certify, That the Schooner named the *Hannah* whereof William P. Sprague is at present Master, has one Deck, is in Length fifty one feet eight inches, in Breadth twelve feet four inches, in Depth three and measured seventeen 25/95 Tons, being a Square Stern'd Schooner without Figure Head etc. with Two Masts.

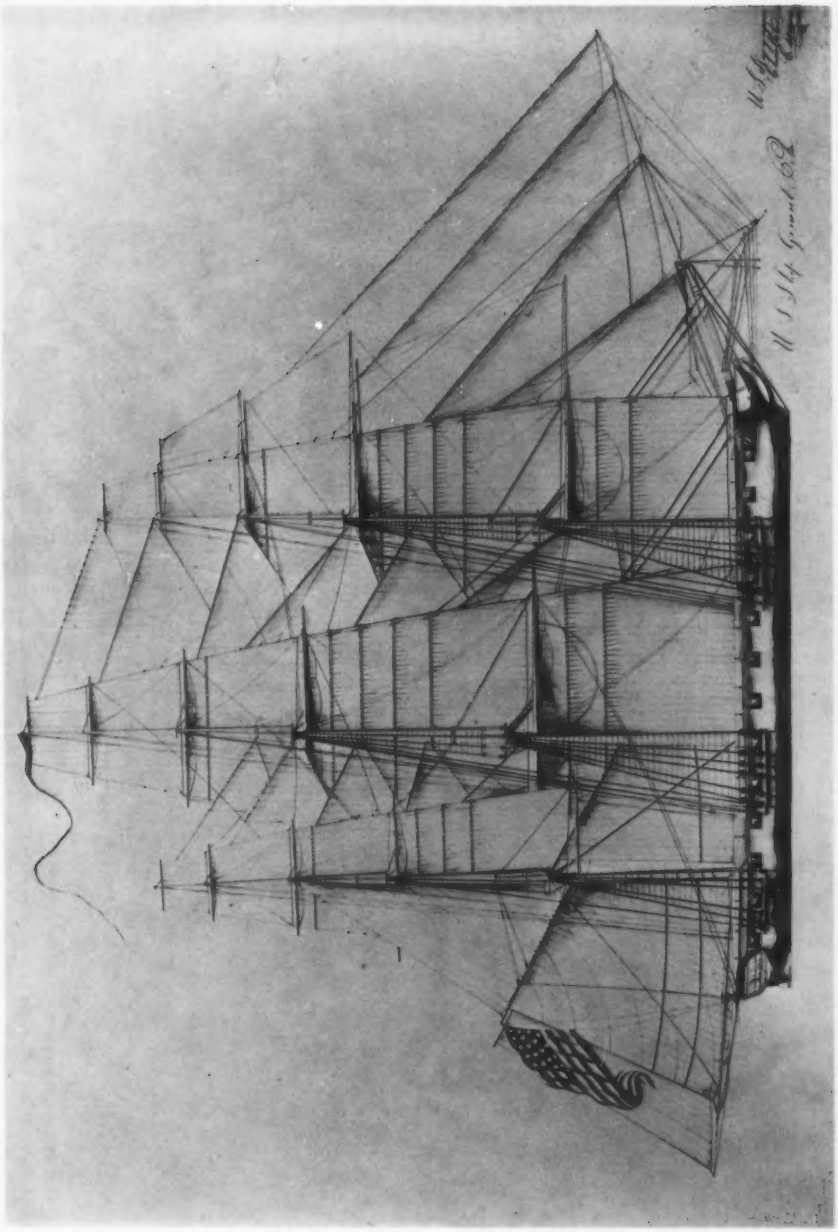
Witness my Hand, at Philadelphia, the Eleventh Day of August in the Year One Thousand Seven Hundred and Ninety Seven.

Jos. Taylow,
Dy. Surv.

Philada. 12th Aug 1797.

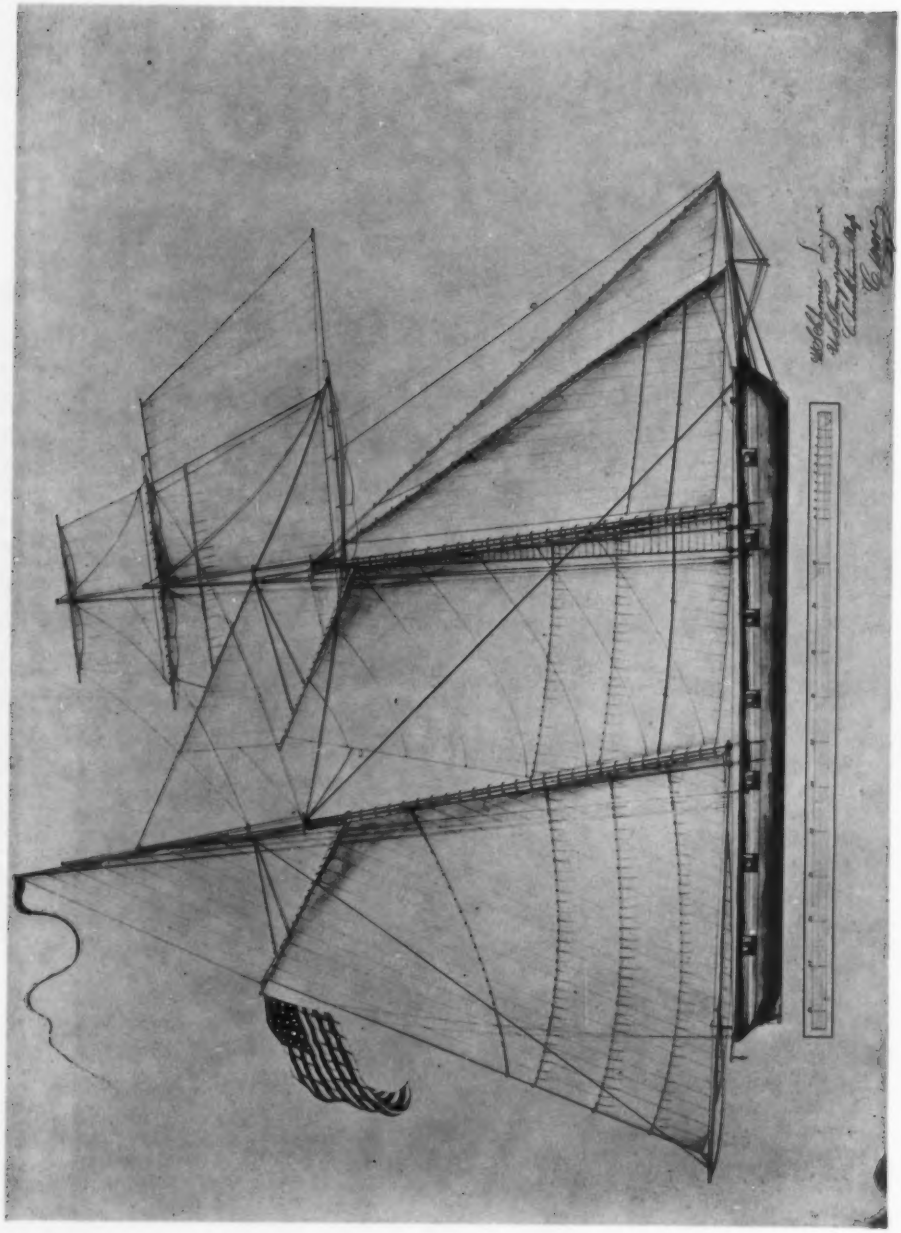
I William P. Sprague Do hereby certify that my machine Boat call'd the Sch. *Hannah,* was by me built & constructed about four years since of the following dimensions Viz. in length fiftyone feet eight inches; breadth twelve feet four inches, & in depth three feet at the Boat's head [on] The property of Samuel Robbins late situate in water near Penn Street & for the machinery attach'd to her, for the Improvement of Navigation have obtained Letters Patent from the Governm't of the United States of America

William Peter Sprague



United States Ship *General Pike*

Plate 19, Charles Ware Manuscript Album in Office of Naval Records and Library, Navy Department



United States Schooner *Lynx*

Plate 14, Charles Ware Manuscript Album in Office of Naval Records and Library, Navy Department

Answers

THREE-MASTED SCHOONERS. There is a portrait of the *May*, mentioned in the January 1943 issue of THE AMERICAN NEPTUNE (III, 86), in the first volume of Robinson and Dow, *The Sailing Ships of New England* (Salem, 1922).

JOHN LYMAN

11. STAYSAILS. The names of the staysails on the mainmast of a brigantine are given by Paasch[1] as *main staysail, middle staysail, main topmast staysail* and *main topgallant staysail.* Evidently the *St. Michael* also carried a *main royal staysail.* Lubbock[2] uses the term *cap staysail* instead of *middle staysail* for the sail set on the stay leading forward from the lower mast-head.

JOHN LYMAN

36. SIGNAL BOOKS. The New York Public Library has a complete file of *Lloyd's Registers* dating from 1842-1843.

R. DE KERCHOVE

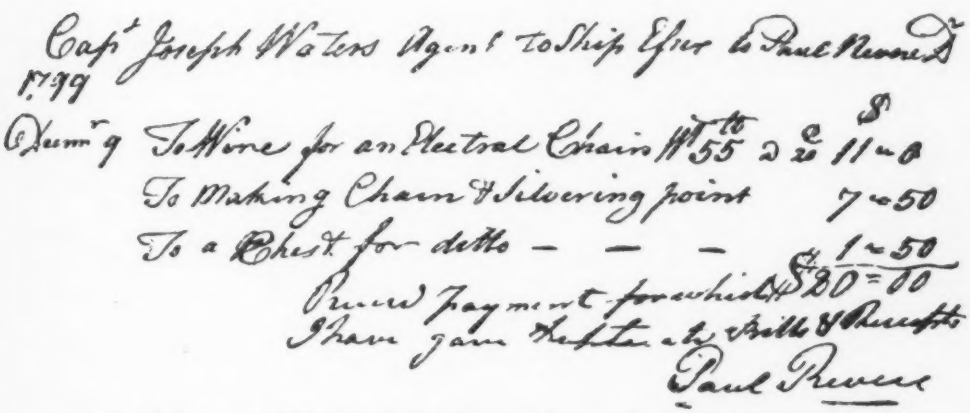
41. LIGHTNING RODS. Some years ago while searching for materials relating to the career of the Continental frigate *Randolph,* I found in the Papers of the Continental Congress[3] a letter dated 6 August 1777 from Captain Nicholas Biddle stating 'the frigate *Randolph* . . . was twice struck with Ligh'tning & her Mainmast Shattered each time. A conductor is since fixed to the Mainmast.' So far as I am aware this is the first recorded instance of a lightning rod being used on board an American vessel. Probably there were others earlier for Benjamin Franklin was not one to hide his light under a bushel. Just how it was made, Biddle does not say but as Biddle was acquainted with the inventor it may have followed Franklin's directions. We do have a record that the device was not very effective for on 1 September 1777 Biddle wrote 'Since I wrote my last letter . . . I had another Main mast Split with Lightning.'[4] Whether Biddle

[1] *From Keel to Truck* (Antwerp, 1885).

[2] *The Last of the Windjammers* (Glasgow, 1927), I, 502.

[3] Volume 78: 7: 117.

[4] P. C. C. 78: 7: 237.


Capt Joseph Waters Agent to Ship Essex to Paul Revere Dr
1799
Decem 9 To Wire for an Electral Chain Wt 55 lb 2 qr 11 lb @ 8
To Making Chain & Silvering joint 7-50
To a Chest for ditto — — — 1-50
$80-00
Recd Payment for the within Bill & Receipt
I have given the Letter to Bill & Receipt
Paul Revere

Paul Revere's Bill for a lightning conductor for U. S. frigate *Essex*
Peabody Museum of Salem: Papers of Captain Joseph Waters

had his new mainmast (the fourth for the frigate) rigged for lightning is not recorded.

When the *Constellation* was outfitted twenty odd years later by Thomas Truxtun a part of her equipment was '2 Lightning Conductors.'[5] How it was constructed we are not told but probably it also followed the Franklin design. We do know positively that method was followed by the U.S. frigate *Essex,* built at about the same time, because we have the bill for her lightning conductor, a bill from no less a person than the ubiquitous Paul Revere.[6] In this it is stated definitely that a chain was used and that there was a point which Revere silvered in good Franklinian fashion.

The chain or conductor seems to have been a series of long bar links with a point at one end. When a thunder storm was imminent, the point was attached to the flag halliards and hoisted to the truck of the mainmast. The chain hung down along the backstay and the lower end was dropped into the water. Slowness in getting the gear rigged may account for Biddle's losing so many spars.

M. V. BREWINGTON

[5] Historical Society of Pennsylvania: Inventory of the *Constellation.*

[6] Peabody Museum of Salem: Papers of Captain Joseph Waters relating to the frigate *Essex.*

THE USE AND fitting of lightning rods by sailing vessels is described and illustrated in Massenet-Vallerey and Letalle, *Greement, Manoeuvre et conduite du navire à Voiles et à Vapeur* (Paris, 1911), I, 107-110, paragraph 164.

R. DE KERCHOVE

AT A RECENT EXHIBITION of ship models, figure-heads and marine pictures in Seattle, I saw a superb model of the four-masted steel bark *Moshulu.* An officer who had served in this vessel pointed out to me a very unusual feature: lightning rods on the fore, main and mizzen masts. These three masts were of steel with wooden royal masts; the jigger mast was all steel. A metal rod extended about five feet up from the center of each truck and down the after side of each of the wooden royal masts, ending in a connection at the cap of the steel topmast head. This of course grounded any charge that the rod would pick up. The rods leading down from the trucks were held out abaft the masts by metal braces at about the middle of the spars, the space being about equal to the diameter of the masts. These braces do not interfere with the parrells of the royal yards because all the moveable yards on this ship ran on rod tracks fixed on the forward sides of the masts.

B. BERENSON, M.D.

News

The Mariners' Museum

Newport News, Virginia. Tomorrow's students of steel shipbuilding and twentieth-century shipyard practice will be interested in the series of murals concurrently being painted for The Mariners' Museum by Thomas C. Skinner. The scope of these works may be appreciated by the list of titles completed below. Suffice to say it is planned that the story of the steamship from blue-print to outfitting basin be graphically told.

In addition to paintings of modern shipbuilding, Mr. Skinner's specialty, several of his works illustrate the transition period and one is struck by the contrast between the careening of a sailing ship and the dry docking of a tanker. In ship propulsion, yesterday's placid sail loft contrasts vividly with the inferno of today's steam hammer shop shaping an eighteen-inch propeller shaft.

The modern views are executed in bold colors with telling realism and have been painted over a period of time from working drawings made on the spot in Newport News' great shipbuilding yard on the banks of the James River. The murals measure 6½ by 10½ feet, the figures in the foreground being approximately one-half life size.

As installed at the Museum, the canvases are placed in panels approximately ten feet above floor level facing each other across the south end of the large maine exhibition room. Ten murals covering the following subjects have been completed since Mr. Skinner commenced work on them in 1936:

Sail Loft; Careening of a Whaler; Tanker warped into Dry Dock; Steamship in Dry Dock; Steamship leaving Dry Dock; Mould Loft; Laying-out Shed; Steam Hammer Shop; Machine Shop; Angle Shed.

Peabody Museum Marine Associates

Salem, Massachusetts. At the quarterly meeting of the Peabody Museum Marine Associates on 26 April 1943 Mr. John R. Herbert of Quincy, Massachusetts, gave a sketch of the history of the Fore River shipyard, and showed moving pictures of the launching of several vessels built there.

Notes on Contributors to The American Neptune

W. Kaye Lamb, formerly Provincial Archivist of British Columbia, and now Librarian of the University of British Columbia, is particularly interested in the history of trans-Pacific steamships. He contributes an account of the misadventures of a railroad magnate in the steamship business.

Bess Glenn is Associate Archivist, Division of Navy Department Archives, The National Archives, Washington, D. C.

Dr. E. Lee Dorsett of Webster Groves, Missouri, contributes the account of an early nineteenth-century voyage to the Mediterranean from a manuscript in his own collection.

Book Reviews

LINCOLN LORENZ, *John Paul Jones Fighter for Freedom and Glory* (Annapolis, Maryland: United States Naval Institute, 1943). 6½" x 9½", cloth. 846 pages. $5.00.

Many writers for more than a hundred years have essayed biographies of America's number one Revolutionary naval hero, but it has remained for Lincoln Lorenz to produce a John Paul Jones 'life' that might be considered definitive. Presumably the much mis-charted and misinterpreted career of the Chevalier was in need of just such an authoritative volume as this, but it is unlikely that his well-documented and conclusive text will have any effect upon the general public's impressions of Jones. What a century of misinformation has built up in the American mind cannot be altered by a lone book with the limited circulation so scholarly a work will enjoy.

Unfortunately, too, the romantic biographers and biographic romancers of Jones—Russell, Thomson and Ellsberg—have preceded Dr. Lorenz with recent perpetrations of more fallacies in robust style with wide popularity. This angle seems to have weighed heavily with the author. It has caused him at times to be repetitious, where he sought only to be emphatic; and it has occasioned some windmill tilting, which contributes nothing but more words to unimportant controversies. Likewise, there is frequently displayed a somewhat defensive attitude, as though every action of Jones needs justification. To that extent he becomes sometimes an apologist or special pleader rather than an unbiased biographer.

As an interpreter of Jones the man — lion-hearted in battle, astute in naval planning, sincere to the point of idealism in his attachment to the American cause, and over susceptible to feminine charms — Dr. Lorenz is excellent. But on other facets of Jones's character he is not so convincing. That the Chevalier might have been overly suspicious of the actions or motives of others; that he was hypersensitive; that he was but a fair disciplinarian; that he was somewhat intolerant of human frailties in his fellow men — these traits are argued down with no admission that Jones might not, after all, be the paragon of all virtues.

Comprehensive and exhaustive as the work is, it is not a book to hold one breathless with suspense. Rather it has to be read slowly and absorbed. Sentences sometimes need to be conned several times before their meanings become clear. Paragraphs require analysis. Progress is at times impeded by historical digressions — necessary, no doubt, but annoying. In the main, the events of Jones's adventurous career are fitted into his life with proper weight and consideration. A reviewer, however, cannot help but wonder why this biography, just as those which have gone before, seems weak on his early Revolutionary services in the *Providence* and *Alfred*. When Jones sails in the *Ranger* he is surrounded by Simpson, Hall, Cullen, Wallingsford; in the *Bonhomme Richard* we hear of Dale, Lunt, Mease, Landais, Parke and many more. But when Jones sails in the *Providence* he sails alone, and the only officer named in the cruise of the *Alfred* is Lieutenant Saunders, who was charged

with disobeying orders. Yet Jones, in one of his letters, boasts of what his old officers and men of the *Providence-Alfred* period could have done at Whitehaven.

Perhaps a little historical digging into this period might have thrown new light on the pre-France days. Certainly it could add additional insights into the character of the Captain; for, strangely enough, he was arresting officers on the *Providence,* threatening others on the *Alfred;* finding fault with men on both ships. And, as to Jones's alleged altruism, the Continental agent at Boston comments, with surprise, that 'under the guise of dispising money he [Jones] is aiming and grasping all he can' by claiming a commodore's three-twentieth share of the *Alfred's* prizes.

To this reviewer's surprise, Dr. Lorenz repeats the cliché about Jones receiving the first commission issued after the signing of the Declaration of Independence. It would have been well had he examined the copy of the muster-roll of the Continental sloop *Independence* in the library of the Navy Department. It would have disclosed that John Young had a better claim to this honor.

The Captain was most prolific in his letter-writing after he reached France in the *Ranger* in the fall of 1777. Much of his voluminous correspondence from then on has been preserved in the Peter Force Collection in the Library of Congress, and Dr. Lorenz has made excellent use of it. But, while he cites in his bibliography two other large repositories of Jones letters – volumes 168 and 193 of the papers of the Continental Congress – there is no indication in his footnotes that he consulted volume 168 at all and volume 193 only in cursory relation to the Landais court martial. He seems to rely on Sherburne and Sands (early biographers who printed many of the documents from these two volumes) rather than the originals. Use of the original material could have added to the authoritativeness of the narrative. But he has tapped extensively the Franklin collections in the American Philosophical Society and the University of Pennsylvania with their wealth of Jones papers.

Dr. Lorenz, for all of this reviewer's captious criticisms, has produced a masterpiece of biographical writing, which stands head and shoulders over all previous Jones efforts. He has made himself a close student of the period as well as of the man, with the result that he can and does paint in a background which helps to explain the Chevalier. He has been painstaking and thorough and sincere (even if pedantic) and has put five years of his life into this most comprehensive volume.

Would that historical societies and public, private and collegiate libraries could be induced to consign all previous Jones biographies to the 'rare book rooms' and keep Dr. Lorenz's *magnum opus* on the shelf for current consultation. It would make for a larger measure of future accuracy about this Scotch-American hero of the Continental Navy, even if the interpretation seems more ardent than impartial.

BOYD CABLE, 'The World's First Clipper,' *The Mariner's Mirror,* XXIX (1943), 66-91.

In this paper the author attempts to document his assertion, first made ten years or so ago,[1] that the 'clipper' was invented by Alexander Hall & Co. of Aberdeen, their first being a 142-ton schooner, the *Scottish Maid,* in 1839. The evidence for this is a plan said to be of the *Scottish Maid,* showing a strongly raking fore-foot with a slight hollow to the water-lines, plus the author's flat statement that no vessel before her had been built with a concave bow. Although no proof is offered, it is further

[1] *Ships & Ship Models,* III (1933), 13-15, 193.

strongly implied that this design was copied [illegible] America and the claim is made that the *Rainbow* of 1845, often considered the 'f[illegible]merican clipper ship, 'was built with the characteristic Aberdeen clipper bo[illegible]lesign.'

It is evident that Mr. Cable is unfamiliar with the work of H. I. Chapelle. A glance at the plans reproduced in *The Baltimore C[illegible]pper* (Salem, 1930) would have shown him that hollow entrance lines were being e[illegible]ployed before 1800. The *Rainbow*[2] had nothing resembling the Aberdeen bow. In[illegible]ed, except for the raking stemposts and stern-posts, the plan described as that [illegible] the *Scottish Maid* strongly resembles that of a contemporary Baltimore clipper [illegible]ig.[3]

The paper mentions several times the tonnage advantage obtained with the Aberdeen design. Clark[4] gives the formula for the Riddle system under which British vessels were measured between 1836 and 1854; it was an elaboration of Old Measurement, attempting to allow for fineness of ends but actually favoring long overhangs. The 'Aberdeen bow' thus seems to have been an attempt at rule-beating by the canny Scots rather than the product of t[illegible] model testing that Mr. Cable describes. Certainly the 'Aberdeen bow' ceases to [illegible]e mentioned after the introduction of the Moorsom tonnage system in 1954, and t[illegible]re is nothing in the lines of the great British tea clippers to indicate descent from [illegible]e *Scottish Maid*.

Men O' War (Newport News, Va.: Newport New[illegible] Shipbuilding & Dry Dock Company, 1943). 9½" x 12½", paper covers, 50 pag[illegible], 60 illustrations, 4 facsimile letters, map.

An interesting and well-selected pictorial record of the honorable part played by Newport News built warships together with particulars of vessels constructed for the U. S. Navy since the Gunboat *Nashville* of 1897. Action photographs mostly from Navy sources prove that Founder Collis P. Huntington's prediction 'always good ships' still hits its mark.

F. WARD HARMAN, *Ship Models Illustrated* (M[illegible]ine Model Co., New York, 1943). 7" x 10", boards, 128 pages, illustrated, colored plates. $2.00.

This is an honest book making no pretense whatsoever of being a complete history of naval architecture, treatise on model making, or maritime history. It is designed for those who build models of vessels purely and simply as an amusement without worrying very much about the authenticity of some of the things prescribed. The book is based on the 'kits' offered for sale by the publisher. Details of the various models are illustrated with reproductions of plans, sketches, and photographs. Except for the colored plates it is fairly well printed, inexpensive and for the market for which it was designed the best job yet produced.

[2] *The History of American Sailing Ships* (New York, 1935), Plate XII.
[3] Ibid., Plate XIII.
[4] *The Clipper Ship Era* (New York, 1910), 373.